# EH6000H series

## EH6108H+/EH6216H+

## User's Manual

V. 1.10.0

## FCC NOTICE (Class B)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

### Federal Communications Commission Statement

**NOTE-** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

## European Community Compliance Statement (Class B)

This product is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive 2004/108/EC.

## DISCLAIMER

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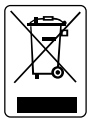


The mark of Crossed-out wheeled bin indicates that this product must not be disposed of with your other household waste. Instead, you need to dispose of the waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. For more information about where to drop off your waste equipment for recycling, please contact your household waste disposal service or the shop where you purchased the product.

### Battery Safety Information

- Store the batteries in a cool dry place.
- Do not dispose of used batteries in domestic waste. Dispose of batteries at special collection points or return to point of sale if applies.
- Remove the batteries during long periods of non-use. Always remove exhausted batteries from the remote control. Battery leakage and corrosion can damage this remote control, dispose of batteries safely.
- Do not mix old and new batteries.
- Do not mix different types of batteries: alkaline, standard (carbon-zinc) or rechargeable (nickel-cadmium).
- Do not dispose of batteries in a fire. The batteries may explode or leak.
- Never short circuit the battery terminals.

**WARNING**

TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE

**CAUTION**

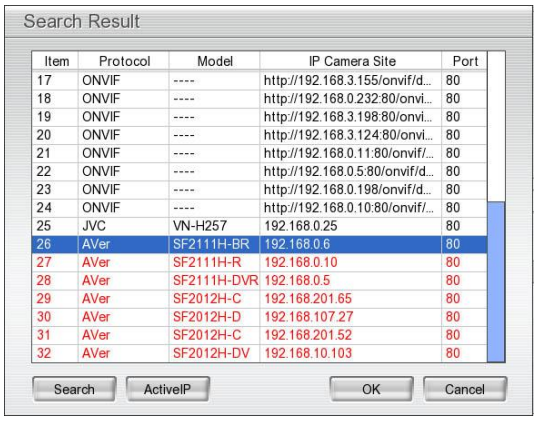
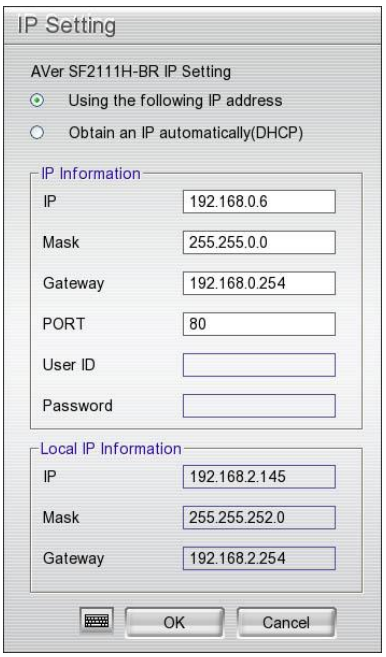
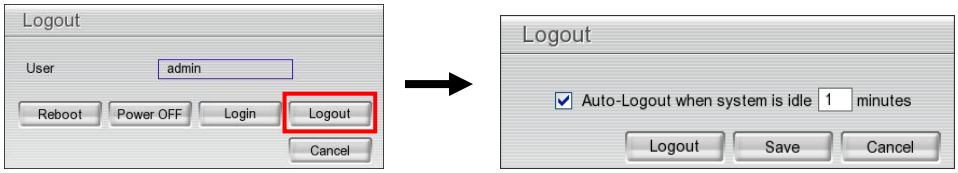
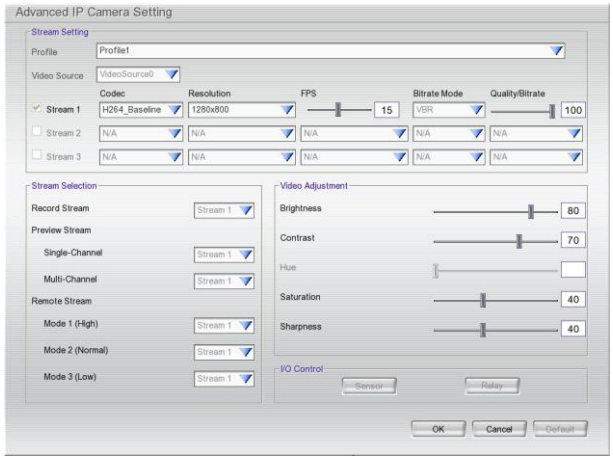
IF THERE IS ANY DAMAGE, SHORTAGE OR INAPPROPRIATE ITEM IN THE PACKAGE, PLEASE CONTACT WITH YOUR LOCAL DEALER. WARRANTY VOID FOR ANY UNAUTHORIZED PRODUCT MODIFICATION

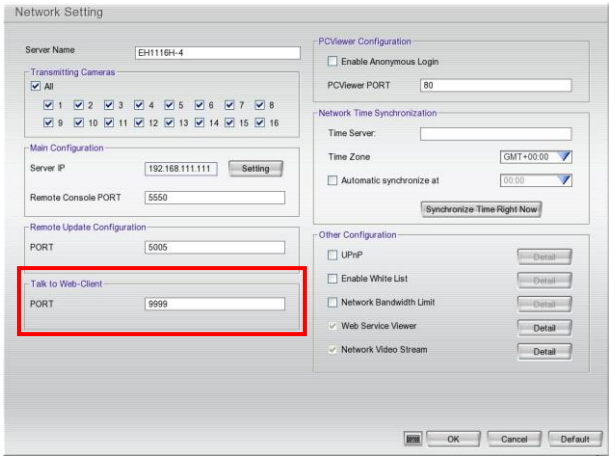
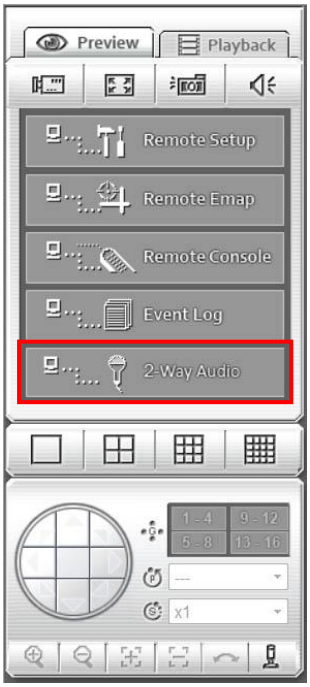
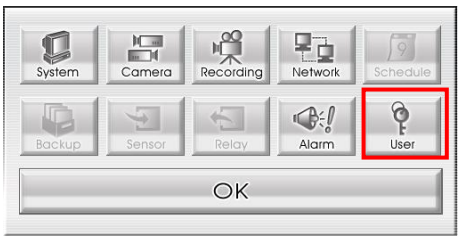
**NOTICE**

- INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE.
- THE INFORMATION CONTAINED HEREIN IS TO BE CONSIDERED FOR REFERENCE ONLY.

# Manual Updates

Following are listed the new functions for the version **X9.03.24.00.07a** and **above** of EH6000H series surveillance software.

| Function | Description |
|---|---|
| **Plug and Play (Camera Setting)** | DVR system supports AVer IP camera series to connect to DVR system without any configuration; user can use “search device” function to find the AVer series IP camera on your LAN network. |
| **Active IP (Camera Setting)** | Allows user to configure the AVer IP camera series on DVR system; user doesn’t need to connect to IP camera on PC to configure the IP camera setting.<br>  <br>  |
| **Logout** | Allows user to set a system idle time to log out DVR system automatically. The idle time period rage is 1 to 60 minutes.<br>  |
| **ONVIF IP camera advanced setting (Camera Setting)** | The DVR system supports IP camera’s detail setting on the IP camera is using ONVIF protocol to connect it.<br>  |

| Function | Description |
|---|---|
| **Two way audio port is configurable (Network Setting)** | Allows user to modify the port number for two-way audio.<br>  |
| **Provides local information to CMS server** | The DVR system will transmit the DVR local information (IP, name of DVR, CPU usage, free HDD capacity, recording status, video loss status, and estimate recording day…etc) to CMS server. User can check the information that provides by DVR system at DVR Status on CMS server. |
| **Two-way audio on PCViewer** | The two-way audio function is available on PCViewer.<br>  |
| **User setting function (Remote setup)** | The user setting function is available on Remote Setup.<br>  |

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# Chapter 1 Introduction

## 1.1 Package Content

### 1.1.1 EH6108H+


(1)


(2)


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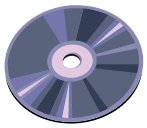
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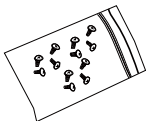
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(8)


(9)

☐ (1) DVR unit
- EH6108+ with HDMI interface
- EH6108H+ w/o HDMI interface

EH6108H+ supports DVD-ROM or HDD tray that depends on user has purchased.

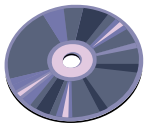
☐ (2) USB optical mouse
☐ (3) Quick User Guide
☐ (4) Software CD (User Manual included)
☐ (5) Screws for HDD installation
☐ (6) Power adaptor
☐ (7) Power Cord
* The power cord varies depending on the standard power outlet of the country where it is sold.
☐ (8) SATA cables
☐ (9) Audio cable(Red cable: 8CH audio in/Black cable: 1CH Spot out &1CH TV out)

## 1.1.2 EH6216H+


(1)


(2)


(3)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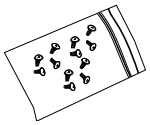
(5)


(6)


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(9)

☐ (2) DVR unit
- EH6216+ with HDMI interface
- EH6216H+ w/o HDMI interface

EH6216H+ supports DVD-ROM or HDD tray that depends on user has purchased.

☐ (2) USB optical mouse
☐ (3) Quick User Guide
☐ (4) Software CD (User Manual included)
☐ (5) Screws for HDD installation
☐ (6) Power adaptor
☐ (7) Power Cord
* The power cord varies depending on the standard power outlet of the country where it is sold.
☐ (8) SATA cables
☐ (9) Audio cable(Red cable: 16CH audio in/Black cable: 1CH Spot out &1CH TV out)

## 1.1.3 Optional Accessories


Remote controller


16CH Loop out cable

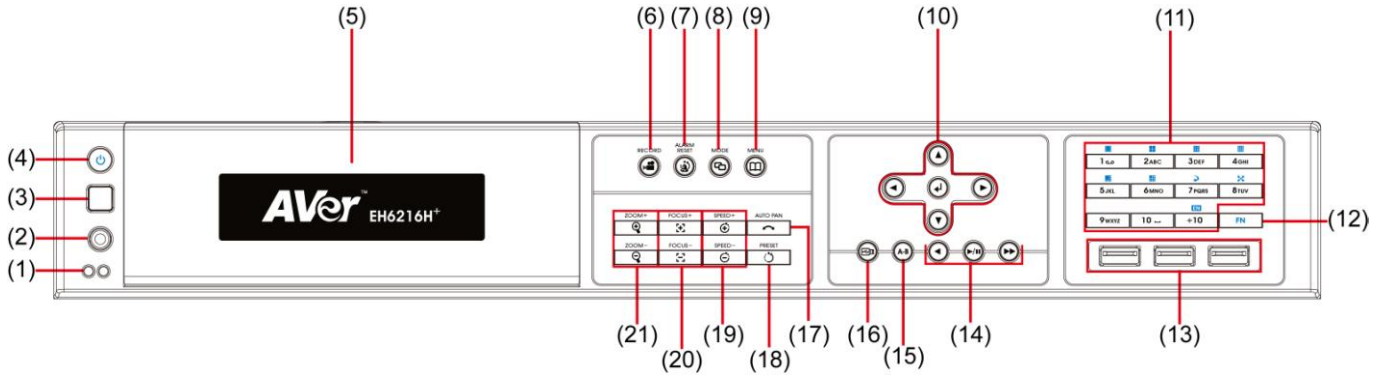

SATA cable for hard disk installation


Rack ears


IR extended cable

# 1.2 Front Panel

## 1.2.1 EH6108H+/EH6216H+




| Name | Function |
|---|---|
| (1) System indicator | - **Power indicator (left):** System power status indicators. Lights when the system is running.<br>- **Record indicator (right):** When DVR system is recording, the light will keep flashing. |
| (2) IR Sensor port | For extended IR sensor cable connection(optional) |
| (3) IR Sensor | Receive signal from the remote controller to operate the DVR unit |
| (4) Power | Power ON/OFF DVR unit |
| (5) DVD-ROM/HDD Tray | - **DVD-ROM:** To backup the recorded file to DVD±R/DVD±RW disk<br>- **HDD Tray:** To install one hard disk. |
| | - CD-R/RW is not supported.<br>- EH6108H+ and EH6216H+ support DVD-ROM or HDD tray that depends on user has purchased. |
| (6) | To start recording video |
| (7) | To reset alarm status |
| (8) | Switch to playback mode or preview mode |
| (9) | Call out system setup menu on preview mode |
| (10) Control Buttons | Move to left direction on cursor control<br>To move PTZ camera lens to left in PTZ mode |
| | Move to right direction on cursor control<br>To move PTZ camera lens to right in PTZ mode |
| | Move to up direction on cursor control<br>To move PTZ camera lens to up |
| | Move to down direction on cursor control<br>To move PTZ camera lens to down |
| | Confirm or make a selection |

| Name | Function | |
|---|---|---|
| | 1 ~ +10 | - Channel camera selection number in playback and preview mode. For the channel over 10, press +10, then press 1 ~ 6 MNO<br>- Press FN, and then press +10 can switch to character mode.<br>- Press FN button can switch to different screen display modes (1 ~ 6 MNO).<br>- Press PRESET and number button, to set the preset position in the PTZ mode. |
| (11) Number buttons | FN + 10 | - Switch to character mode.<br>- Press FN to switch to FN mode (The word "**FN**" is displayed in the left bottom corner on screen). Then, press +10 to enter EN mode (The word "**EN**" is displayed in the left bottom corner on screen). User can press the character button and press rapidly to find the character that wants to enter.<br>1 : backward/delete button<br>2 ABC : abcABC<br>3 DEF : edfDEF<br>4 GHI : ghiGHI<br>5 JKL : jklJKL<br>6 MNO : mnoMNO<br>7 PQRS : pqrsPQRS<br>8 TUV : tuvTUV<br>9 WXYZ : wxyzWXYZ<br>10 : space button |

| Name | Function |
|---|---|
| (12) FN | A functional key for multiple system control. Press FN to switch to FN mode (The word "**FN**" will show up in the left bottom corner on screen). Press FN button again to exit FN mode (The "**X**" will show up in the left bottom corner on screen).<br>FN + 1 : Switch to single screen display mode<br>FN + 2ABC : Switch to QUAD display mode<br>FN + 3DEF : Switch to 9 spilt screen display mode<br>FN + 4GHI : Switch to 16 split screen display mode<br>FN + 5JKL : Switch to one single and 8 spilt screen display mode<br>FN + 6MNO : Switch to one single and 13 spilt screen display mode<br>FN + 7PQRS : Enable/disable auto scan<br>FN + 8TUV : Switch to full screen mode<br>FN + +10 : Switch to characters mode |
| (13) USB 2.0 port | 3 x USB 2.0 ports for connecting USB device, ex: USB pen drive, external hard disk, mouse…and so on.<br>The USB backup device must be in FAT32 format. |
| (14) Playback buttons | To playback video at faster speed<br>To start playback / To pause playback<br>To rewind the recorded video |
| (15) A-B | Set a video segment to playback repeat (see Chapter 1.2.1.1). |
| (16) | To backup recorded video file to USB storage device(pen drive or external hard disk) and DVD-ROM. |
| (17) Auto Pan | AUTO PAN — To enable auto pan function |
| (18) Preset | PRESET — Adjust the PTZ lens to the position that user wants. And then, press PRESET with number button to setup the PTZ camera preset position. |
| (19) Speed + / Speed - | SPEED+ — To speed up movement of PTZ camera lens<br>SPEED− — To speed down movement of PTZ camera lens |
| (20) Focus + / Focus - | FOCUS+ — To focus in PTZ camera lens<br>FOCUS− — To focus out PTZ camera lens |

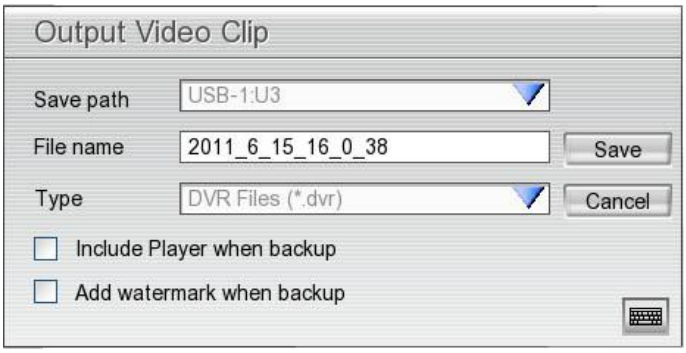
| Name | Function | |
|---|---|---|
| (21) Zoom + / Zoom - | ZOOM+ | To zoom in view of PTZ camera lens |
| | ZOOM− | To zoom out view of PTZ camera lens |

### 1.2.1.1 To Cut and Save the Portion of the Recorded Video

1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click A-B to set the begin mark.


2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click A-B to set the end mark. To cancel segmentation, click A-B button again.

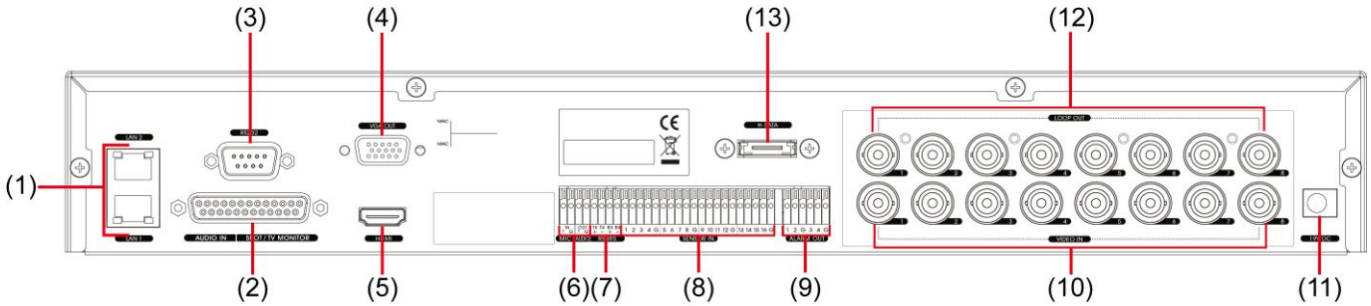

3. Click **Export** button and select **Output Video Clip** to save the wanted portion. User can rename the **File name**. Mark "**Include Player when backup**" option to include a Qplayer application in backup file for palyback backup video clip later on. Mark "**Add watermark when backup**" option to have watermark protection on backup file and user can have watermark exam on Qplayer application.




4. Click **Save** to save the video clip. User should see a folder named "**backup**" on your USB storage device.
5. To playback the backup video clip, using Qplayer application that is included in backup folder.

# 1.3 Back Panel

## 1.3.1 EH6108H+ (HDMI supported)



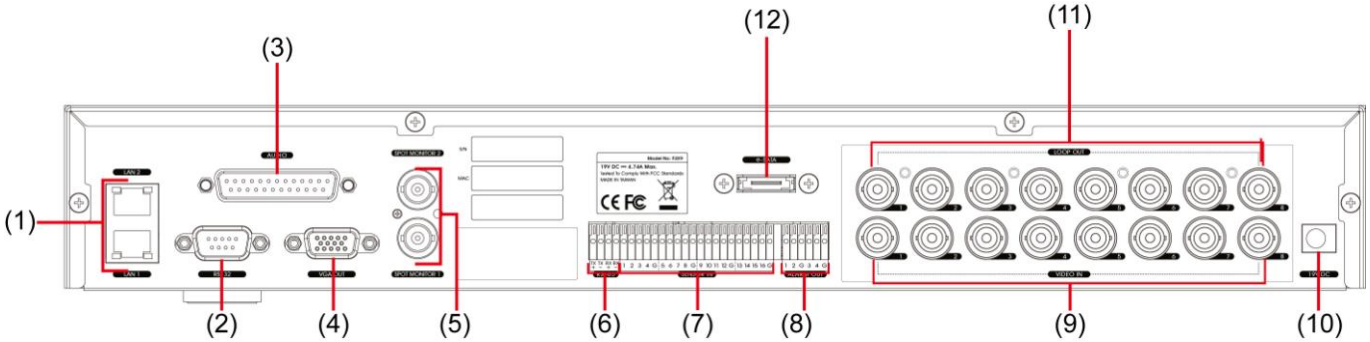

| Name | | Function |
|---|---|---|
| (1) | LAN 1/LAN 2 port | For Gigabit Ethernet connection |
| (2) | Audio IN/SPOT/TV Monitor | - **Audio input** (red connector)**:** 8 channels(stick **1~8** on cable only). To connect with camera's audio cable.<br>- **Spot Monitor** (sticker **2** on cable): 1 spot output. Outputs the analog video signals to Spot monitor when receive the alarm events.<br>- **TV output** (sticker **1** on cable): 1 TV output. Output the video signal to a TV. |
| (3) | VGA Out | Output the video signal to a CRT or LCD monitor |
| (4) | RS232 port | For POS device connection |
| (5) | HDMI port | Output the video signal to TV/HDMI monitor. |
| (6) | MIC/Audio | **MIC:** To connect the microphone.<br>**Audio:** For audio output device connection, such as speaker. |

The audio input and output device has its own power supply is necessary.

| | | |
|---|---|---|
| (7) | RS485 | For analog PTZ camera connection (also see Chapter 1.4.3). |
| (8) | Sensor In | Support up to 16 sensor devices |
| (9) | Relay Out | Support 4 relay devices (Relay: 1A @ 125V AC/30V DC). |
| (10) | Video Loop Out | Output the analog video signal to a CCTV monitor. |
| (11) | 19V DC connector | Connect the power adaptor into this port. |
| (12) | CH1~ 08 | Input the video camera signal and display it on channel 1~ 08. |
| (13) | eSATA port | For connecting with HDD or RAID. |

When connecting eSATA device, please make sure the DVR has installed hard disk to reduce abnormal situation occurs.

## 1.3.2 EH6108H+ (None HDMI)



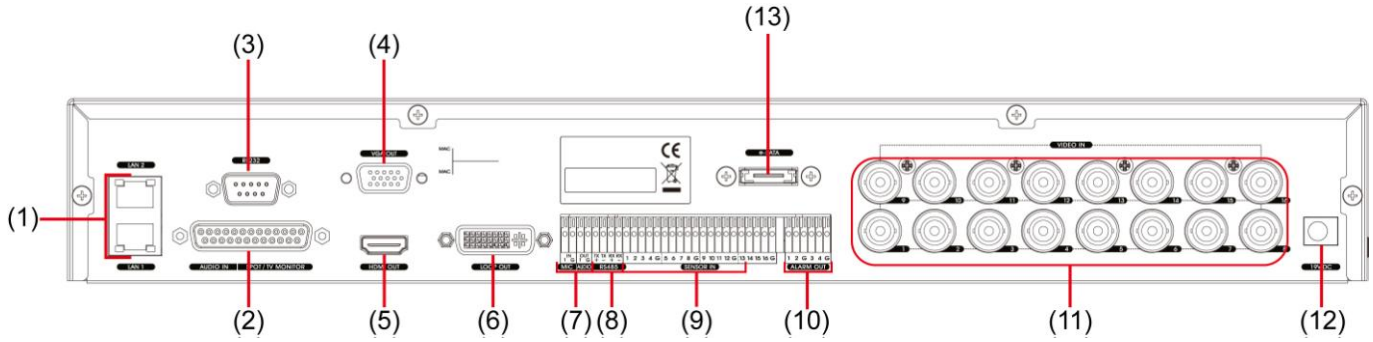

| Name | Function |
|---|---|
| (14) LAN 1/LAN 2 port | For Gigabit Ethernet connection |
| (15) RS232 port | For POS device connection |
| (16) Audio port | Input/output audio signal to audio input/output device.<br>- Audio input: 8 channels<br>- Audio output: 1 channel<br>- Microphone input: 1 channel |

The audio input and output device has its own power supply is necessary.

| | |
|---|---|
| (17) VGA Out | Output the video signal to a CRT or LCD monitor |
| (18) SPOT Monitor 1/2 | Output the analog video signal to SPOT monitor when receive the alarm events |
| (19) RS485 | For analog PTZ camera connection (also see Chapter 1.4.3). |
| (20) Sensor In | Support up to 16 sensor devices |
| (21) Relay Out | Support 4 relay devices (Relay: 1A @ 125V AC/30V DC). |
| (22) CH1~ 08 | Input the video camera signal and display it on channel 1~ 08. |
| (23) 19V DC connector | Connect the power adaptor into this port. |
| (24) Video Loop Out | Output the analog video signal to a CCTV monitor. |
| (25) eSATA port | For connecting with HDD or RAID. |

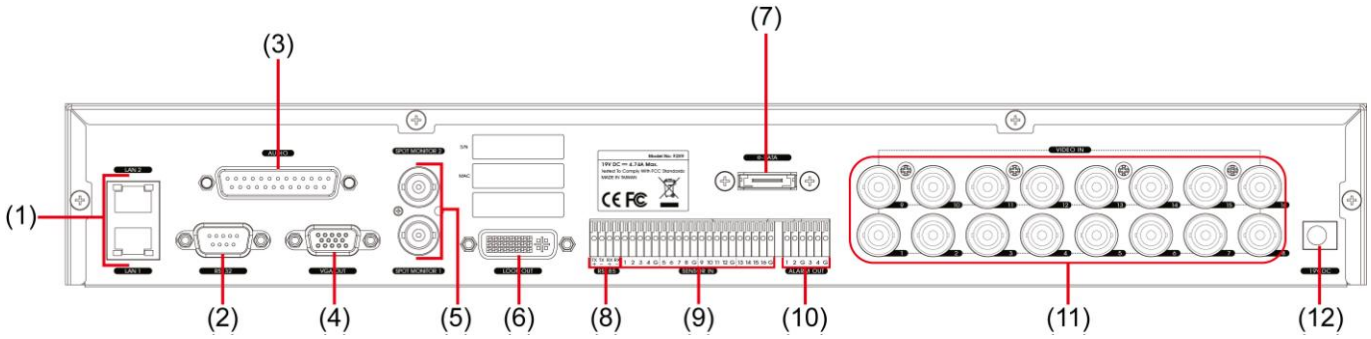
When connecting eSATA device, please make sure the DVR has installed hard disk already to reduce abnormal situation occurs.

## 1.3.3 EH6216H+ (HDMI supported)




| Name | | Function |
|---|---|---|
| (1) | LAN 1/LAN 2 port | For Gigabit Ethernet connection |
| (2) | Audio IN/SPOT/TV Monitor | - **Audio input** (red connector)**:** 16 channels (sticker 1~16). To connect with camera's audio cable.<br>- **Spot Monitor** (sticker **2** on cable): 1 spot output. Outputs the analog video signals to Spot monitor when receive the alarm events.<br>- **TV output** (sticker **1** on cable): 1 TV output. Output the video signal to a TV. |
| (3) | VGA Out | Output the video signal to a CRT or LCD monitor |
| (4) | RS232 port | For POS device connection |
| (5) | HDMI port | Output the video signal to TV/HDMI monitor. |
| (6) | Video Loop Out | Output the analog video signal to a CCTV monitor. |
| (7) | MIC/Audio | **MIC:** To connect the microphone.<br>**Audio:** For audio output device connection, such as speaker. |
| | The audio input and output device has its own power supply is necessary. | |
| (8) | RS485 | For analog PTZ camera connection (also see Chapter 1.4.3). |
| (9) | Sensor In | Support up to 16 sensor devices |
| (10) | Relay Out | Support 4 relay devices (Relay: 1A @ 125V AC/30V DC). |
| (11) | CH1~ 16 | Input the video camera signal and display it on channel 1~ 16. |
| (12) | 19V DC connector | Connect the power adaptor into this port. |
| (13) | eSATA port | For connecting with HDD or RAID. |
| | When connecting eSATA device, please make sure the DVR has installed hard disk to reduce abnormal situation occurs. | |

## 1.3.4 EH6216H+ (None HDMI)




| Name | Function |
|---|---|
| (14) LAN 1/LAN 2 port | For Gigabit Ethernet connection |
| (15) RS232 port | For POS device connection |
| (16) Audio port | Input/output audio signal to audio input/output device.<br>- Audio input:16 channels<br>- Audio output: 1 channel<br>- Microphone input: 1 channel |

The audio input and output device has its own power supply is necessary.

| | |
|---|---|
| (17) VGA Out | Output the video signal to a CRT or LCD monitor |
| (18) SPOT Monitor 1/2 | Output the analog video signal to SPOT monitor when receive the alarm events |
| (19) Video Loop Out | Output the analog video signal to a CCTV monitor. |
| (20) eSATA port | For connecting with HDD or RAID. |

When connecting eSATA device, please make sure the DVR has installed hard disk to reduce abnormal situation occurs.

| | |
|---|---|
| (21) RS485 | For analog PTZ camera connection (also see Chapter 1.4.3). |
| (22) Sensor In | Support up to 16 sensor devices |
| (23) Relay Out | Support 4 relay devices (Relay: 1A @ 125V AC/30V DC). |
| (24) CH1~ 16 | Input the video camera signal and display it on channel 1~ 16. |
| (25) 19V DC connector | Connect the power adaptor into this port. |

# 1.4 Setting Up the DVR Unit

## 1.4.1 Installing the Hard Disks

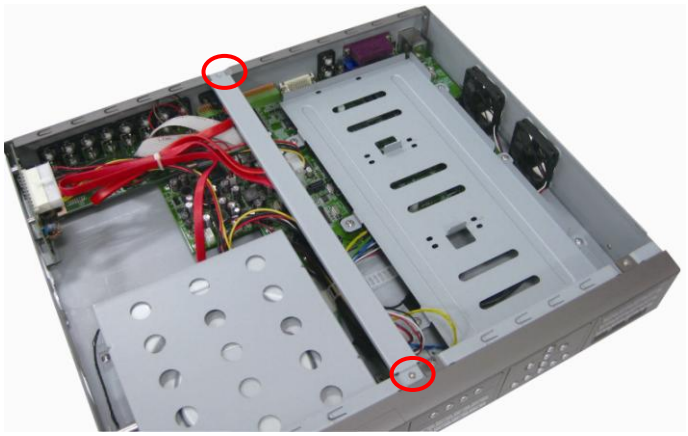
The external USB hard disk only supports on file backup. Please **do not** use the external USB hard disk for recording purpose.

User can install up to 3 SATA hard disks inside the DVR unit if it is necessary.

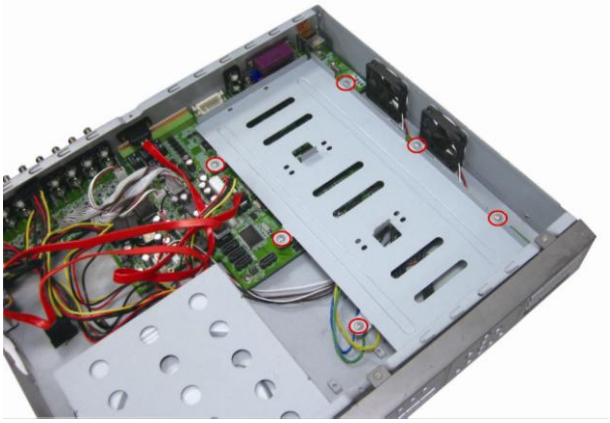
Follow the illustrated instructions below to install the hard disk:

1. Loosen all screws (2 side and back) and push the cover backward and lift.

2. Loosen the screws of holder in order to take out the hard disk rack.

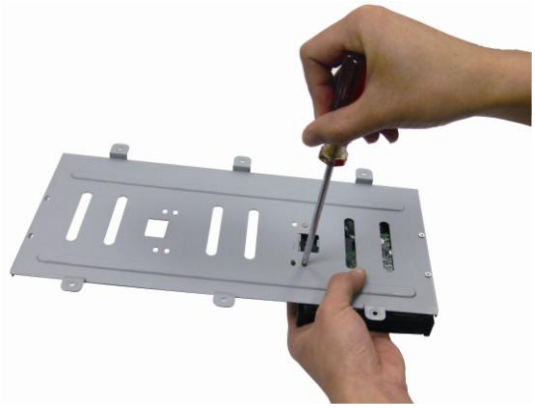


3. Loosen all the screws of hard disk plate.



4. The hard disk plate can be installed 3 hard disks. User can choose the position and place the hard disk on it.

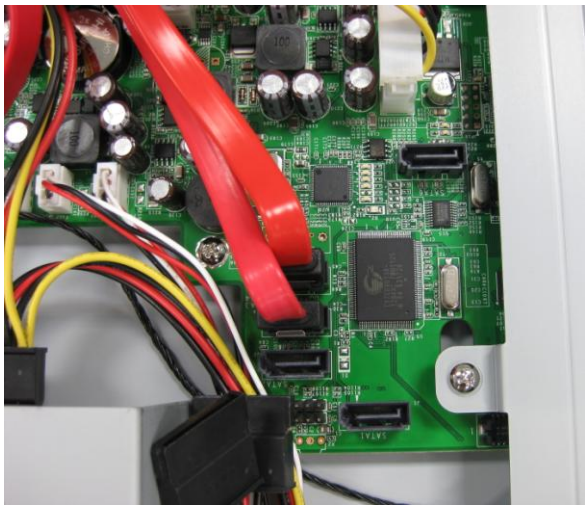
5. Turn the plate and hard disk over carefully and screw the hard disk on the plate. If hard disk cannot match to the screw hole, then, you may adjust the hard disk position to match the screw hole.



6. Plug the SATA cable into SATA connector on the PC board.

**[Note]**

1. SATA 5 is for DVD player.
2. SATA 4 is for e-SATA interface
3. 1st HDD is suggested to install on SATA 6.
4. The number of SATA connector is displayed nearby SATA connector.

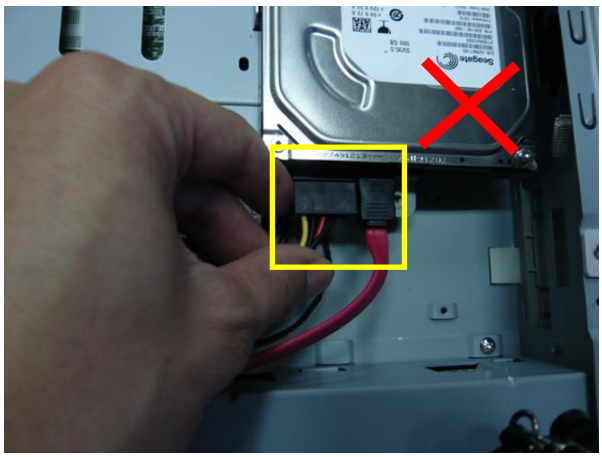


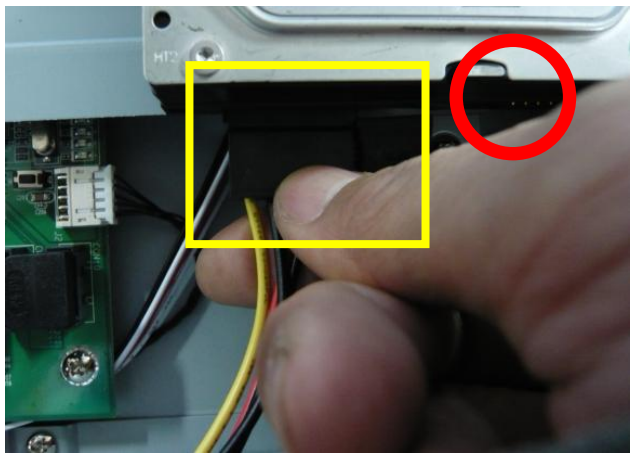
7. Plug the power cable and SATA cable into hard disk. And then, screw the plate inside the DVR unit.

8. Plug the SATA cable into the left side hard disk.

User can leave un-plug the SATA cable of the left side HDD for screwing plate inside the DVR more easily later.

When user remove power cable from hard disk, please **DO NOT** pull the power cable straight way. Please pull out the power cable by moving power connector to left and right side and slowly pull out the power cable from hard disk.





9. Screw the holder on the DVR unit.

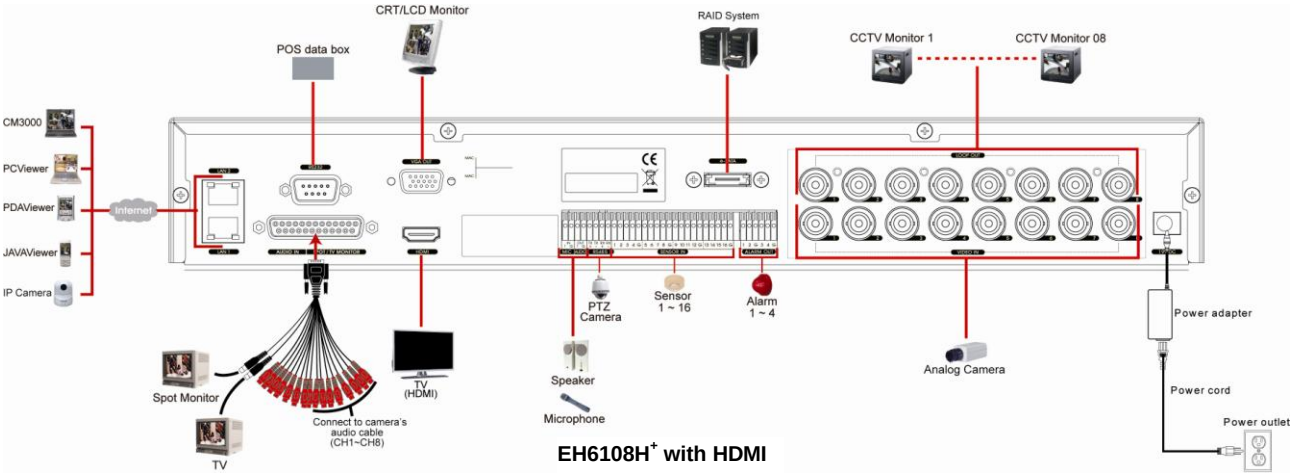
10. Push the cover forward and secure the cover.

11. You may now connect all the cables and power on the DVR unit.

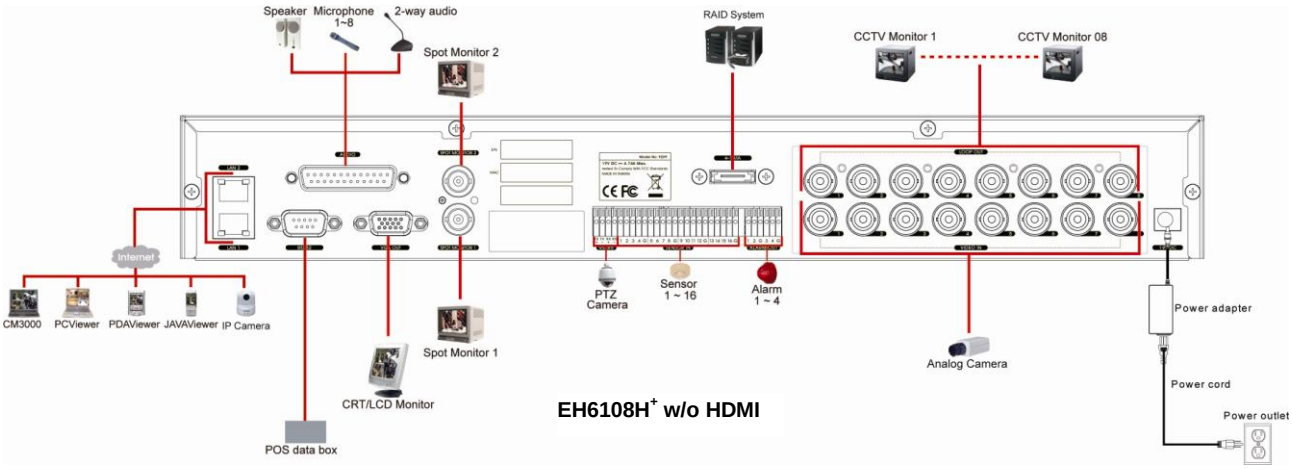
## 1.4.2 Connecting Devices

### 1.4.2.1 EH6108H+

The back panel of the DVR unit, user can connect up to 8 cameras in both analog and IP camera. The DVR unit also can connect 16 sensor devices, 4 alarm devices, and output video to a TV or CRT/LCD monitor. Follow the illustration below to make the connection:

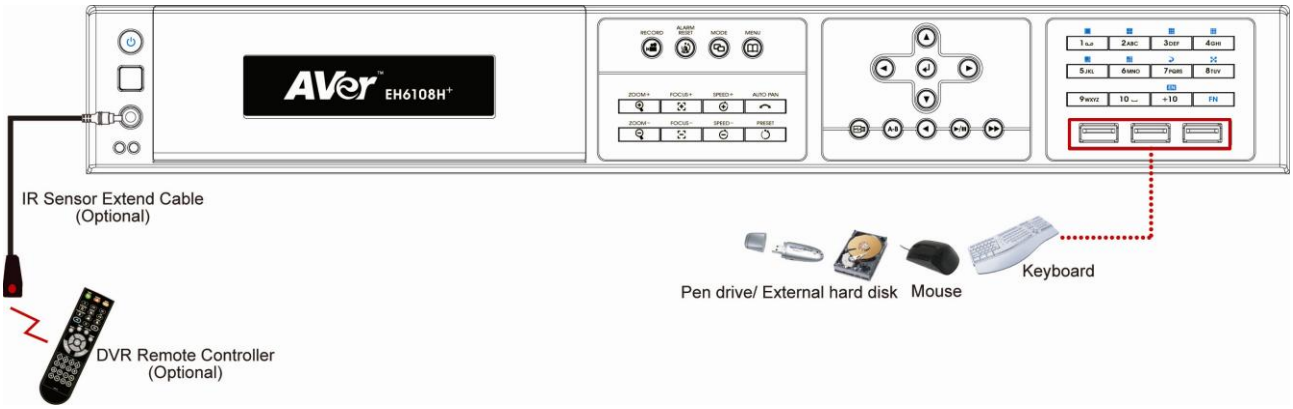



**EH6108H+ with HDMI**




**EH6108H+ w/o HDMI**

For backup recorded video, plugging the pen drive or external hard disk through USB port that are located at front panel of DVR unit, and then, use the bundled software enables user to transfer, playback and segment the video. Follow the illustration below to make the connection:

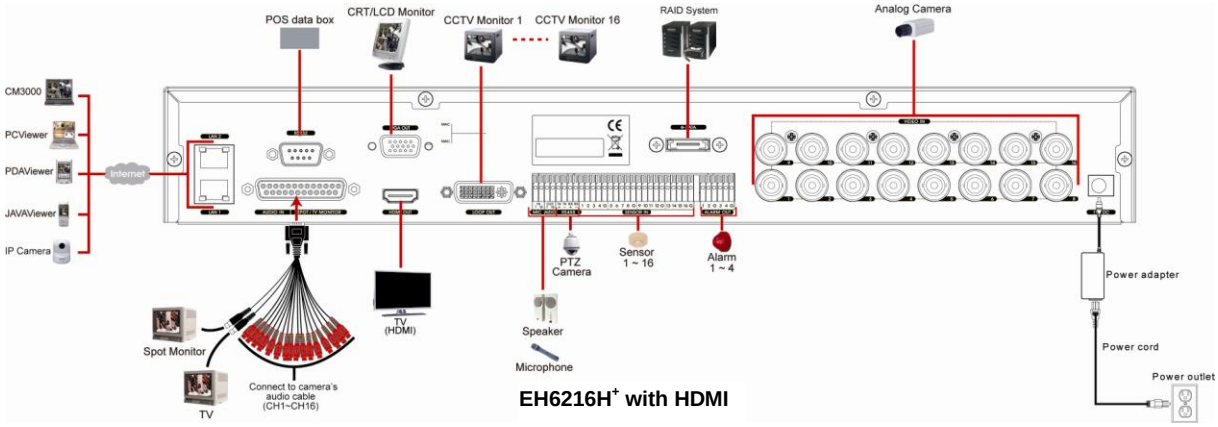



Pen drive and external hard disk must be FAT32 format.

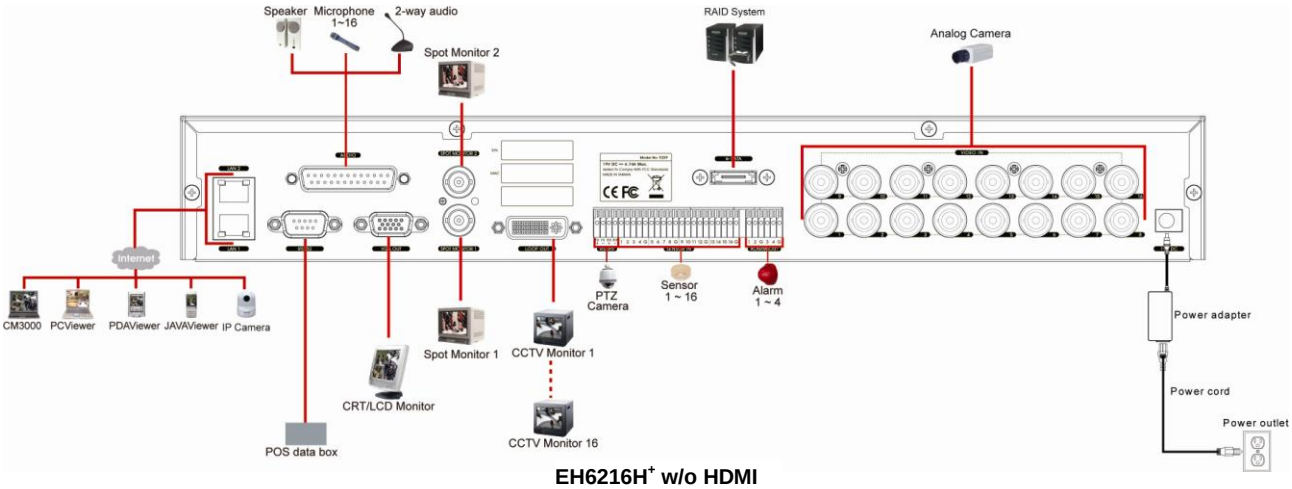
- All connected devices have its own power supply is necessary.
- DVR unit can connect 8 cameras in both of analog and IP cameras.

### 1.4.2.2 EH6216H+

The back panel of the DVR unit, user can connect up to 16 cameras in both analog and IP camera. The DVR unit also can connect 16 sensor devices, 4 alarm devices, and output video to a TV or CRT/LCD monitor. Follow the illustration below to make the connection:



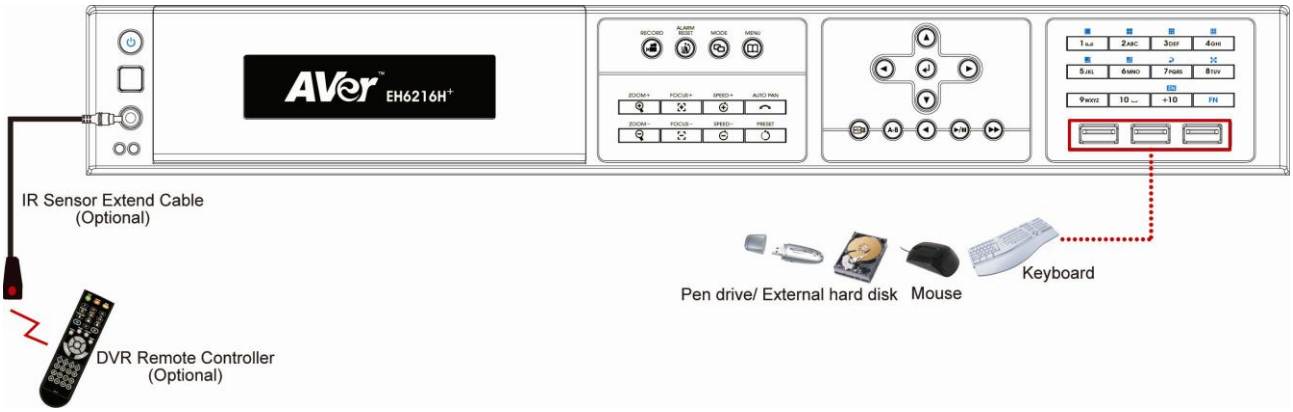

**EH6216H+ with HDMI**




**EH6216H+ w/o HDMI**

For backup recorded video, plugging the pen drive or external hard disk through USB port that are located at front panel of DVR unit, and then, use the bundled software enables user to transfer, playback and segment the video.

Follow the illustration below to make the connection:

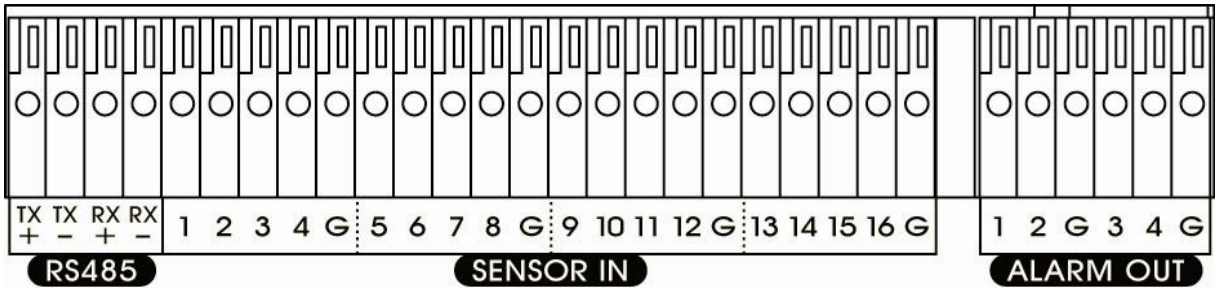



Pen drive and external hard disk must be FAT32 format.

- All connected devices have its own power supply is necessary.
- DVR unit can connect 16 cameras in both analog and IP cameras.

## 1.4.3 Sensor, Relay and RS485 pinhole allocation

The Sensor and Alarm enable you to connect 16 sensor inputs, 4 relay outputs and PTZ cameras. Just connect the external sensor, relay, and PTZ camera pin directly to the pinhole. Check the table below and locate which pinhole is assigned to sensor input and relay output.




### 1.4.3.1 Sensor Pin Definition

| Sensor Pin # | Definition | Sensor Pin # | Definition |
|---|---|---|---|
| **1** | Sensor 1 signal | **9** | Sensor 9 signal |
| **2** | Sensor 2 signal | **10** | Sensor 10 signal |
| **3** | Sensor 3 signal | **11** | Sensor 11 signal |
| **4** | Sensor 4 signal | **12** | Sensor 12 signal |
| **G** | Sensor ground | **G** | Sensor ground |
| **5** | Sensor 5 signal | **13** | Sensor 13 signal |
| **6** | Sensor 6 signal | **14** | Sensor 14 signal |
| **7** | Sensor 7 signal | **15** | Sensor 15 signal |
| **8** | Sensor 8 signal | **16** | Sensor 16 signal |
| **G** | Sensor ground | **G** | Sensor ground |

### 1.4.3.2 Relay Pin Definition

| Relay Pin # | Definition |
|---|---|
| **1** | Relay signal(N/O) |
| **2** | Relay signal(N/O) |
| **G** | Relay ground |
| **3** | Relay signal(N/O) |
| **4** | Relay signal(N/O) |
| **G** | Relay ground |

### 1.4.3.3 RS485 Pin Definition

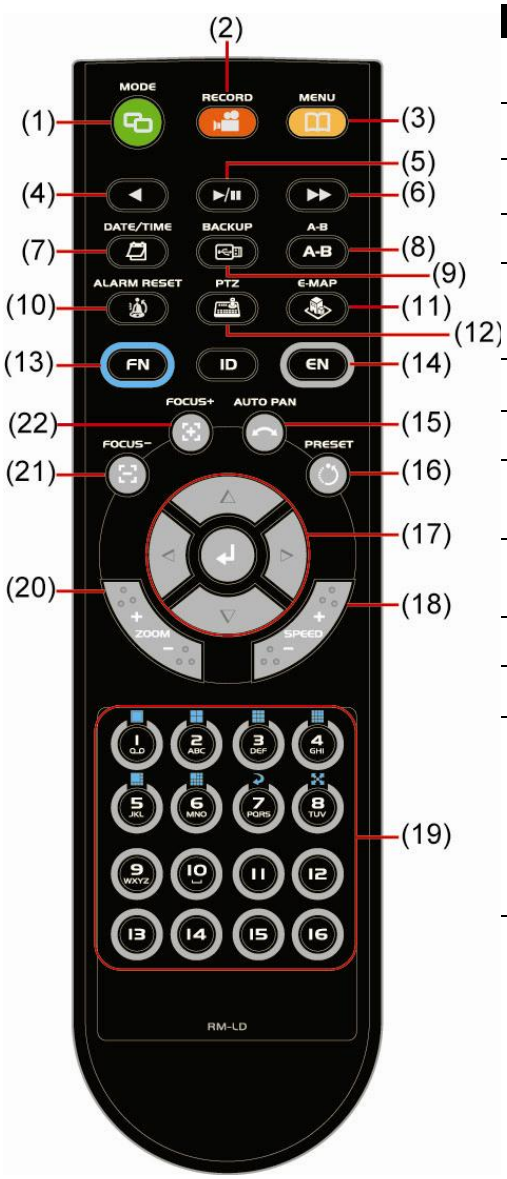
When connect PTZ camera through RS485 interface, please refer to the following pin definition to connect the DVR and PTZ.

| Pin # | DVR site | PTZ site |
|---|---|---|
| **TX+** | RS485 TX+ signal | RS485 RX+ signal |
| **TX-** | RS485 TX- signal | RS485 RX- signal |
| **RX+** | RS485 RX+ signal | RS485 TX+ signal |
| **RX-** | RS485 RX- signal | RS485 TX- signal |

If user uses the 2 wires for the PTZ camera connection, please connect to the RS-485 TX+ and TX- of the DVR site.

# 1.5 Familiarizing the Remote Controller Buttons

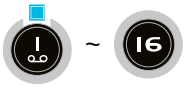
Use the Remote controller to operate the DVR unit.




| Name | Function |
|---|---|
| (1) | Switch to playback mode |
| (2) | Start recording video |
| (3) | To call out system setup menu |
| (4) | To rewind the recorded video |
| (5) | To start playback<br>To pause playback |
| (6) | To playback video at faster speed |
| (7) | To select the time and date of playback file |
| (8) A-B | Set a playing recorded video from A point to B point segment and repeat playing on surveillance screen |
| (9) | To backup recorded video file to USB storage device(pen drive or external hard disk) and DVD-ROM. |
| (10) | To reset alarm status |
| (11) | Switch to Emap mode |
| (12) | Switch to PTZ mode. Press + channel number (1 ~ 16) can switch to PTZ control mode if the selected camera is a PTZ camera and the PTZ function is enabled. |

| Name | Function |
|---|---|
| (13) FN | A functional key for multiple system control<br>- Press FN to enable FN modes (The word "**FN**" will show up in the left bottom corner on screen).<br>- To exit FN modes, press FN again (The "**X**" will show up in the left bottom corner on screen).<br>FN + 1 : Switch to single screen display mode<br>FN + 2 ABC : Switch to QUAD display mode<br>FN + 3 DEF : Switch to 9 spilt screen display mode<br>FN + 4 GHI : Switch to 16 spilt screen display mode |

| Name | Function |
|---|---|
| (13) FN | FN + 5 JKL : Switch to one single and 7 + 1 spilt screen display mode<br>FN + 6 MNO : Switch to one single and 12 + 1 spilt screen display mode<br>FN + 7 PQRS : Enable/disable auto scan<br>FN + 8 TUV : Switch to full screen<br>FN + 9 WXYZ ~ 16 doesn't have any functions. |
| (14) EN | - Switch to character mode.<br>- Press EN to enter EN mode (The word "**EN**" will show up in the left bottom corner on screen). User can press the character button and press rapidly to find the character that wants to enter. Press EN button again to exit EN mode (The "**X**" will show up in the left bottom corner on screen).<br>1 : backward/delete button<br>2 ABC :abcABC<br>3 DEF : defDEF<br>4 GHI : ghiGHI<br>5 JKL : jklJKL<br>6 MNO : mnoMNO<br>7 PQRS : pqrsPQRS<br>8 TUV : tuvTUV<br>9 WXYZ : wxyzWXYZ<br>10 : space button |
| (15) | To enable auto pan function |
| (16) | To move the PTZ camera to the preset position. Press + number button. |
| (17) | To move PTZ camera to left<br>To move PTZ camera to right |
| (17) | To move PTZ camera to up<br>To move PTZ camera to down<br>Confirm or make a selection |
| (18) | Speed + : To speed up movement of PTZ camera lens<br>Speed - :To speed down movement of PTZ camera lens |

| Name | Function | |
|---|---|---|
| (19)  |  | - As a number key for entering password in playback and preview mode<br>- Channel camera selection number in playback and preview mode |
| |  | As a preset position with  at PTZ control mode |
| |  | With FN button can switch to different screen display modes and enable auto scan and full screen. (see also Chapter 1.7 #(16)) |
| (20)  | Zoom + : To zoom in view of PTZ camera | |
| | Zoom - :To zoom out view of PTZ camera | |
| (21)  | To focus out PTZ camera lens | |
| (22)  | To focus in PTZ camera lens | |

The ID button doesn't support at this version.

# 1.6 Upgrading the DVR System Firmware

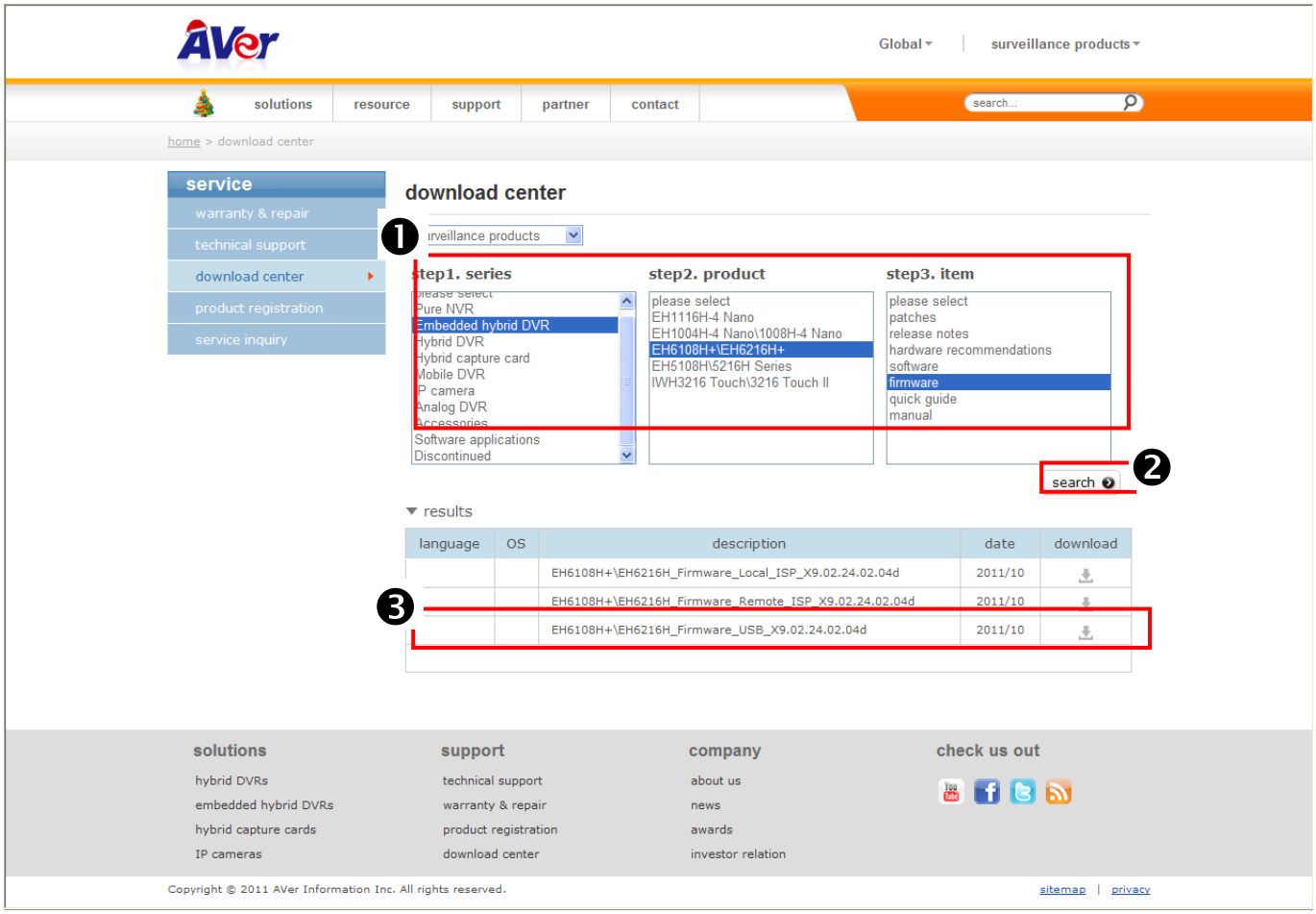
Please make sure your DVR model before download DVR firmware. Wrong DVR model's firmware may cause the DVR system break down.

## 1.6.1 USB Recovery

Save the firmware on USB pen drive and through the USB port on DVR unit to upgrade the firmware of DVR system.

1. Download the firmware from website http://surveillance.aver.com/ >> **Support** >> **download Center** >> **Embedded hybrid DVR** >> **EH6108H+/EH6216H+** >> **firmware**. Then, click **Search** button to search firmware. After firmware has found, select the file named "**EH6216H_Firmware_USB_*"** to download it.

**[Note]** The firmware version is supported version **05c** and **above**.




2. After download the firmware file, un-zip the file and save on USB pen drive.

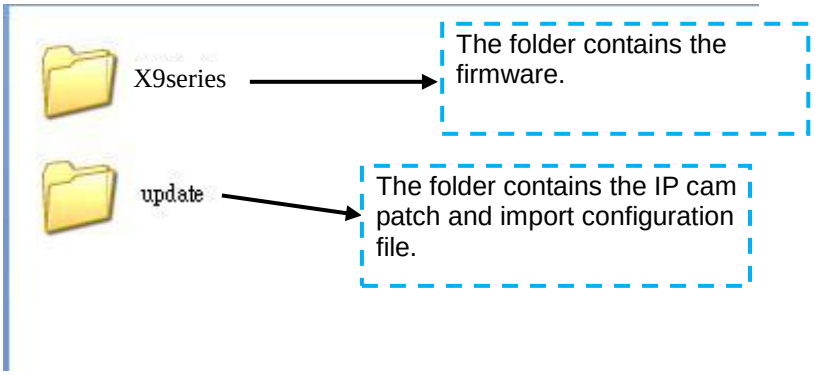
**[Note]** Copy the entire firmware file folder into USB pen drive.

3. Then, create a folder named **Update** and copy the IP camera patch file that user can download from web site http://surveillance.aver.com/ same as downloading the firmware file and import configuration file that user has export from DVR system. The name of import file must to be "**import.cfg**".

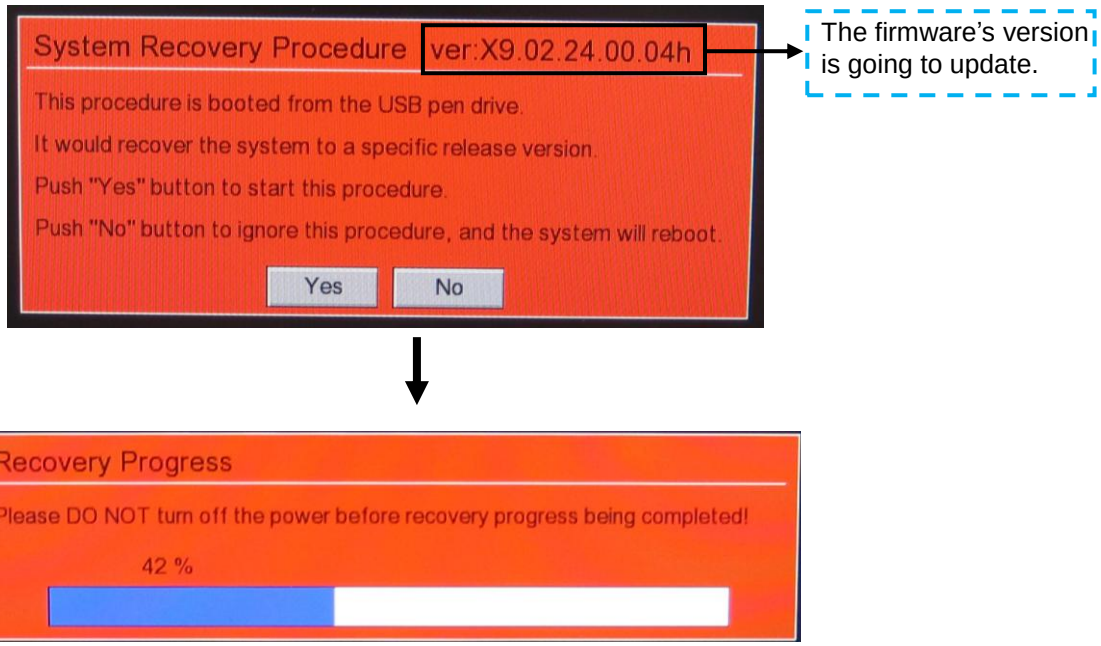
**[Note]**

a. The update folder is saved in the same directory as firmware file folder.

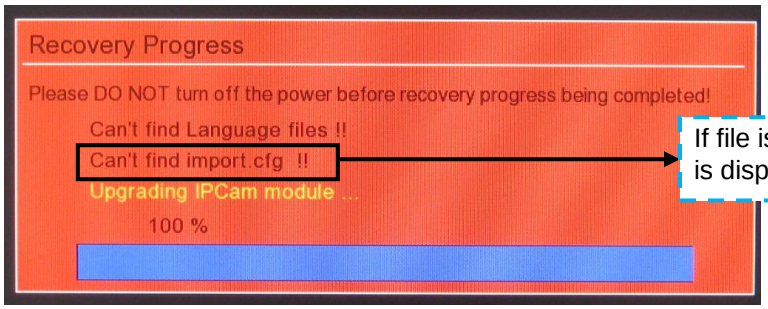
b. If user don't need to import configuration file or upgrade IP camera patch in different version, the update folder is not necessary to create at this point.




4. Un-pug the USB mouse from DVR unit.
5. Next, plug the USB pen drive to **left side** of USB port on DVR unit. Then, power on DVR unit. While the DVR is reading file, the screen is black. Please wait for a System Recovery Procedure window to show up.
6. When System Recovery Procedure window show up, click **Yes** to continue it. If user wants to cancel the firmware upgrade procedure, click **No**.

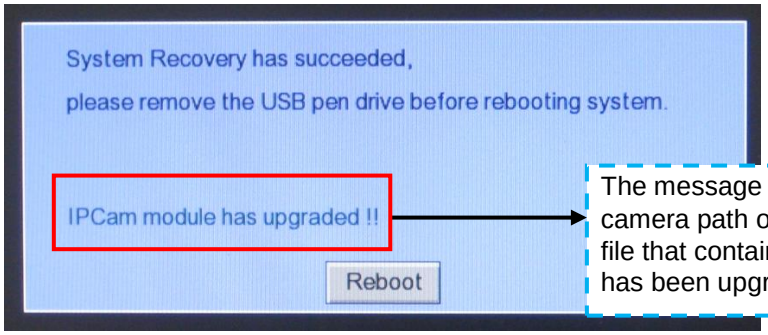


7. After firmware upgrade is completed, the DVR system will check the files of Update folder and if configuration file and IP camera patch file has found, then, the import and upgrade procedure will be processed.

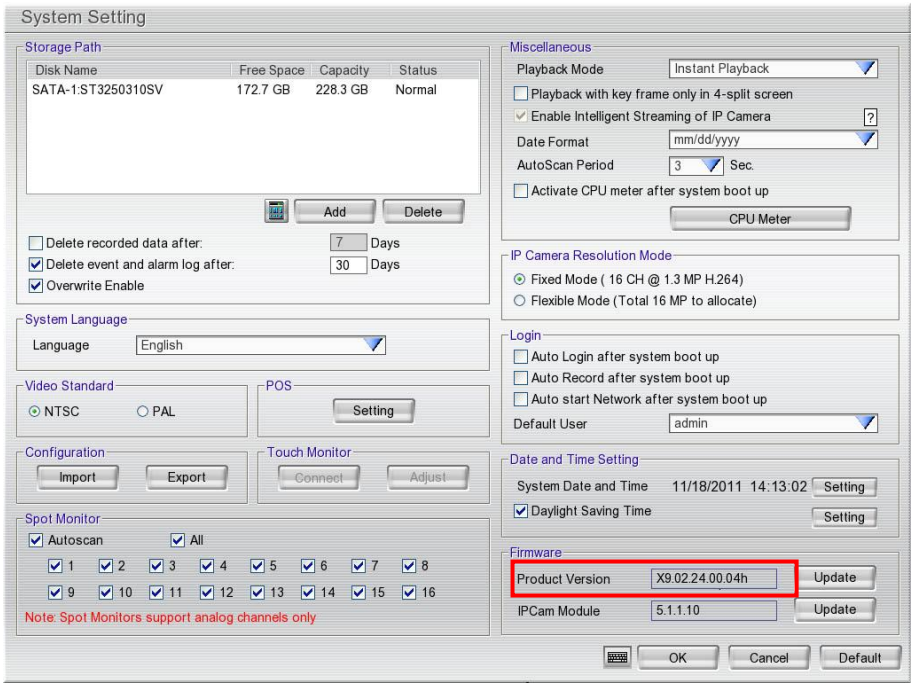



8. After all procedures have completed, the Reboot window is show up. Click **Reboot** button and remove the USB pen drive from DVR unit to restart DVR system.

- The DVR system will reboot automatically if Reboot button hasn't been click for a period time.
- Remember to remove USB pen drive after click reboot button; otherwise, the DVR system will start upgrade process again.




9. After reboot, user can go to **Setup** >> **System** to check the version of firmware and make sure the upgrade process is successful.



## 1.6.2 Local UI Upgrading

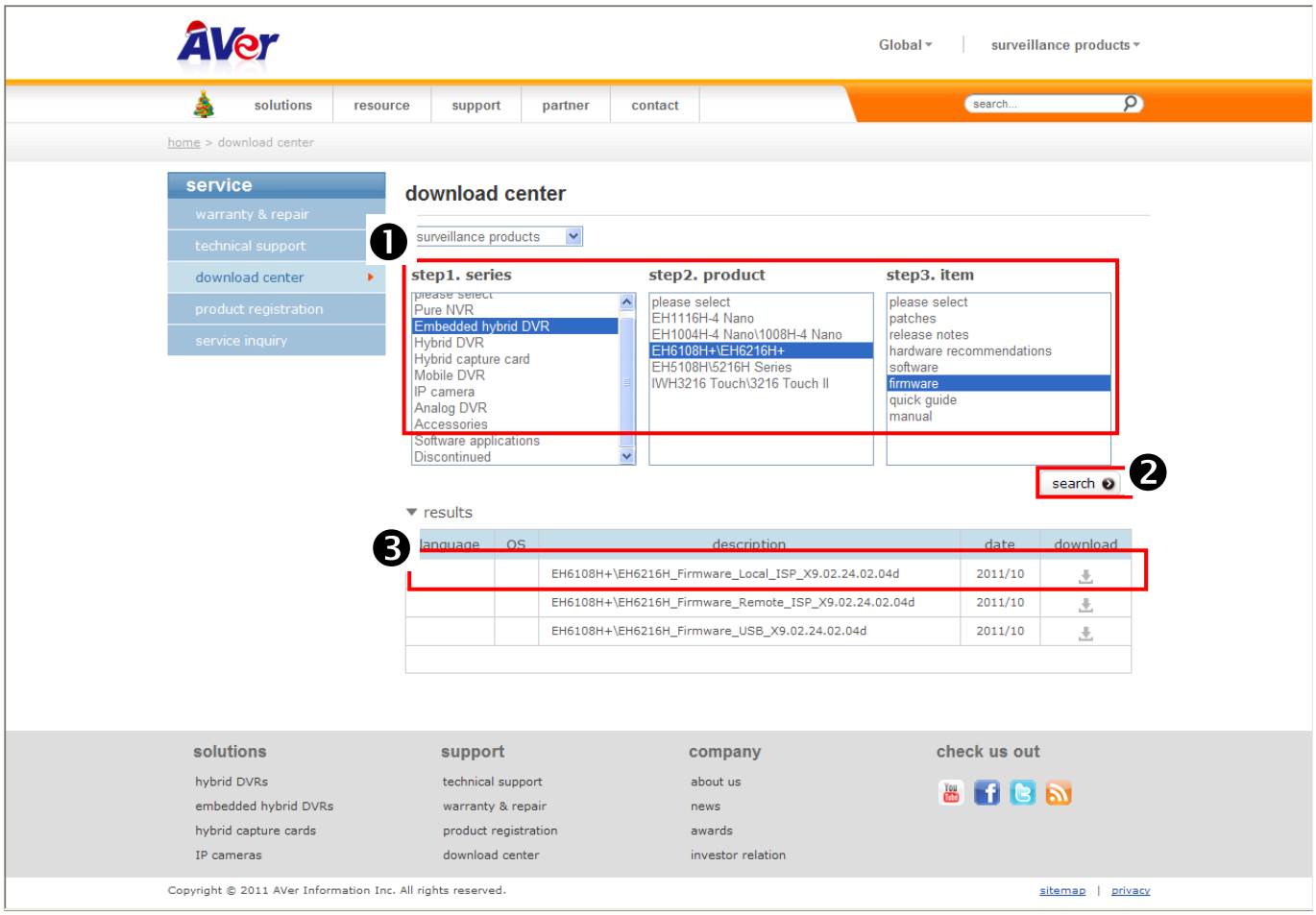
Upgrade the DVR system firmware through **Update** button in System Setting window.

**[Note]**

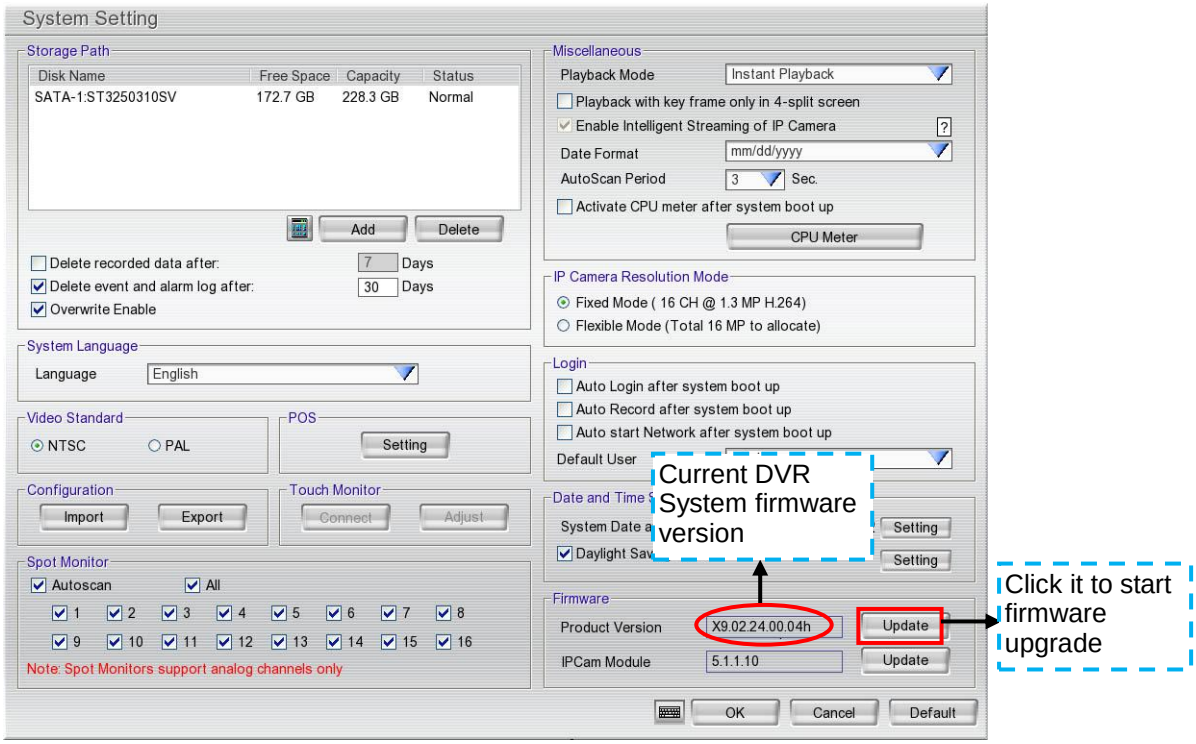
- ✧ When upgrading DVR firmware, the IP camera patch file is upgrading at the same time.
- ✧ When upgrading IP camera patch file, only IP camera patch file is upgraded.

1. Download the firmware from website http://surveillance.aver.com/ >> **Support** >> **download Center** >> **Embedded hybrid DVR** >> **EH6108H+/EH6216H+** >> **firmware**. Then, click **Search** button to search firmware. Select the file named "**EH6216H_Firmware_Local_ISP_*** " to download it. After download the firmware file, unzip it and save the firmware file on USB pen drive.

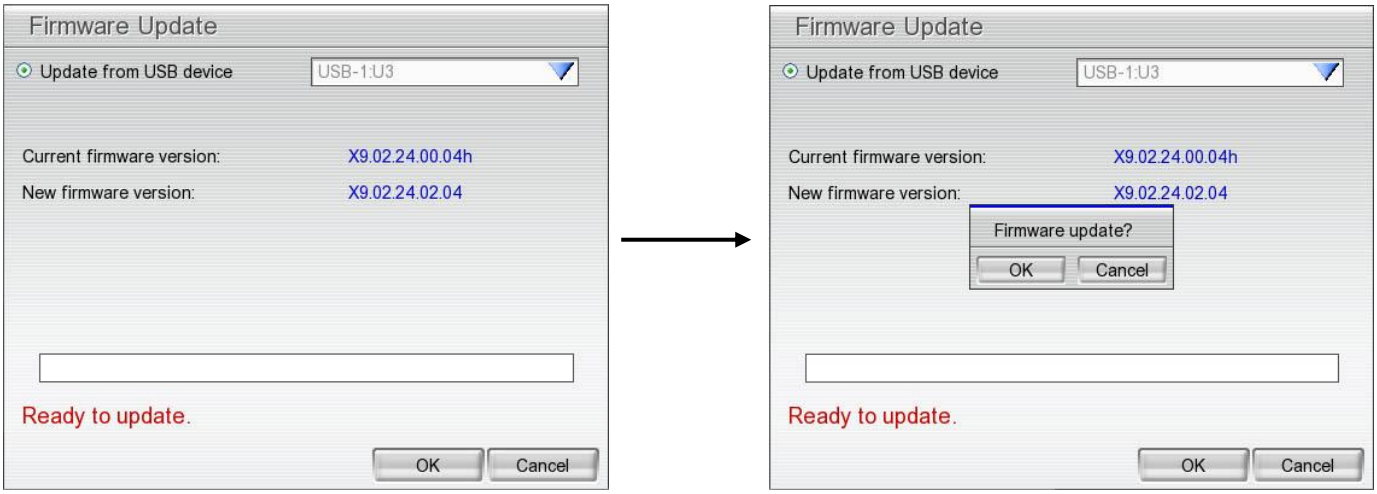
**[Note]** Firmware file is " ***.bin**" file type.



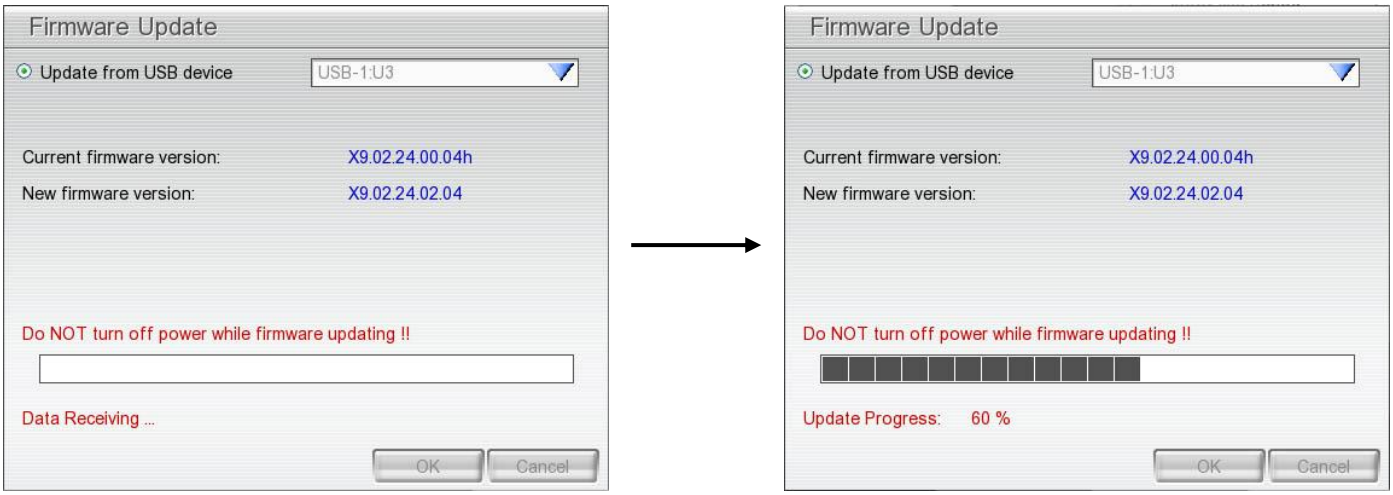
2. Plug the USB pen drive to USB port on DVR unit. Then, click **Setup** >> **System** and click Update button.



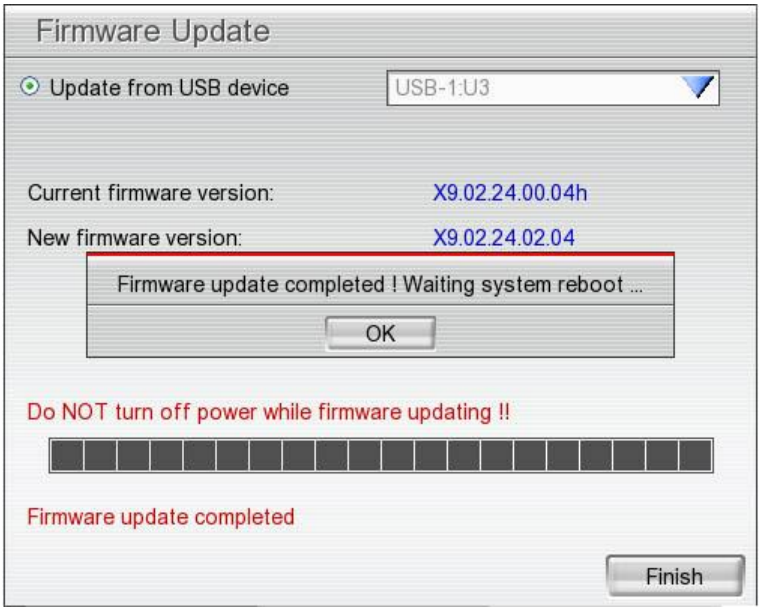

3. After click update button, Firmware Update dialog is shown up and DVR system has detected the firmware file on USB pen drive and ready for upgrading procedure. User can check the firmware version to make sure the firmware is newer than current version. Click **OK** to start upgrading procedure.



4. Wait for a while, DVR system is starting to upgrade firmware.




5. After upgrade is completed, click **OK** and DVR system will reboot automatically.



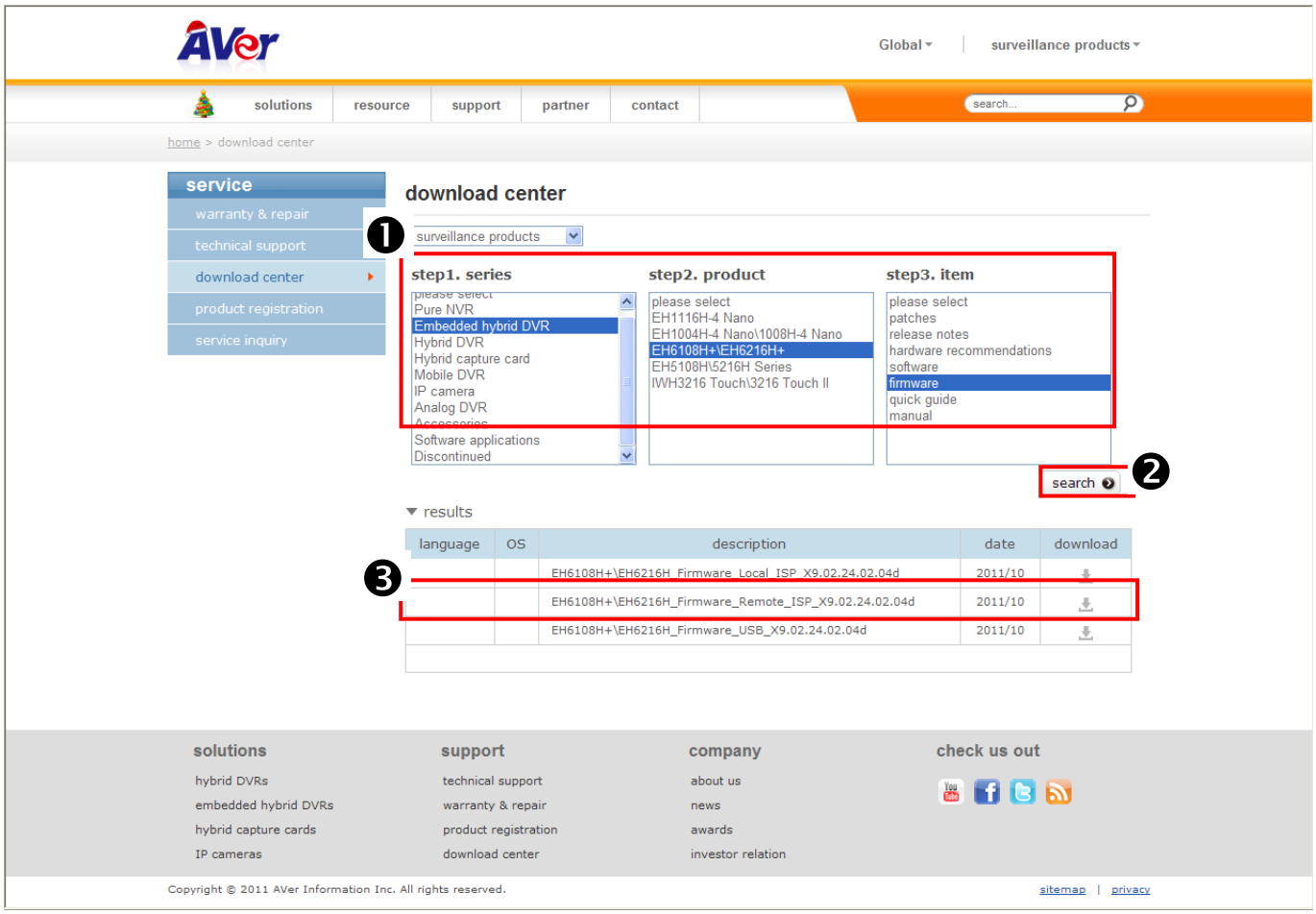
## 1.6.3 Remote ISP Upgrading

User can upgrade the DVR firmware from remote PC.

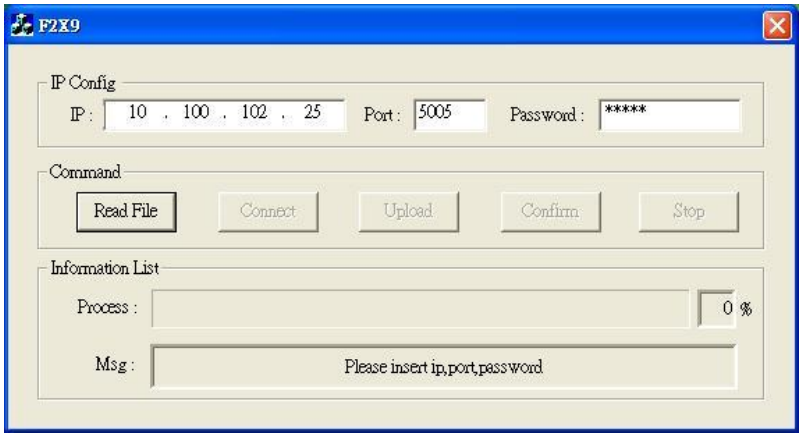
**[Note]**

- ✧ The PC that uses to upgrade DVR firmware must can connect to DVR system through LAN or WAN network.
- ✧ The DVR hard disk needs to have 250MB free spec.

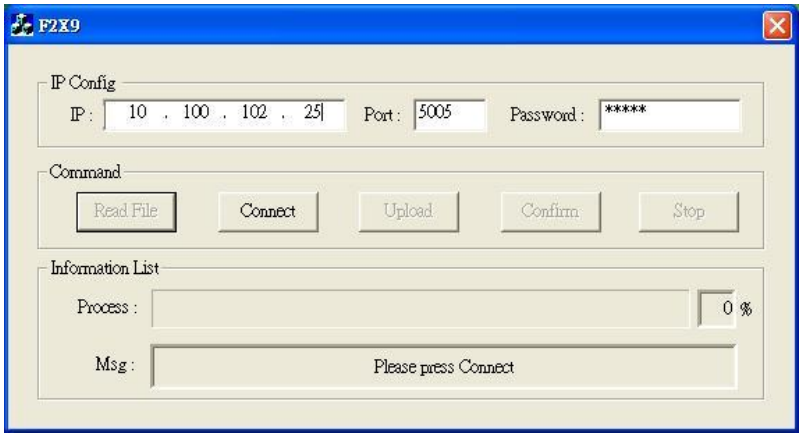
1. Download the firmware from website http://surveillance.aver.com/ >> **Support** >> **download Center** >> **Embedded hybrid DVR** >> **EH6108H+/EH6216H+** >> **firmware**. Then, click **Search** button to search firmware. Select the file named "**EH6216H_Firmware_Remote_ISP_*"** to download it. After download the firmware file, unzip it and save the firmware file on PC. The firmware file contents one ISP application and DVR firmware file.



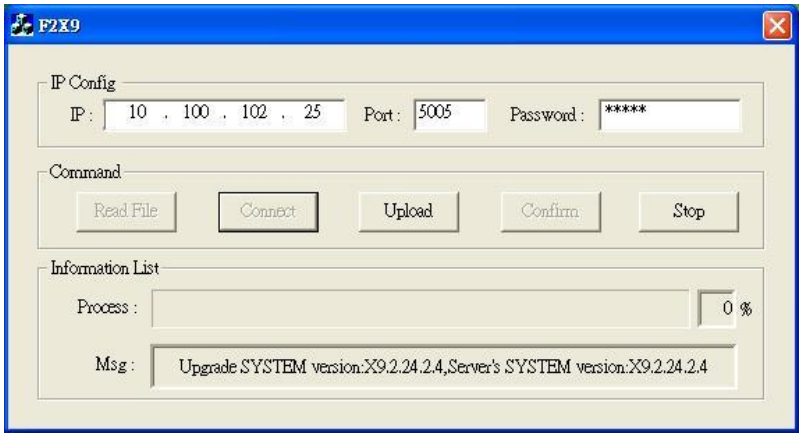
2. Run the ISP application on PC and enter the DVR's IP address, Port (Remote Update Configuration port in Network setting), and Password (admin password). Then, Click **Read File** button and locate where firmware file is.



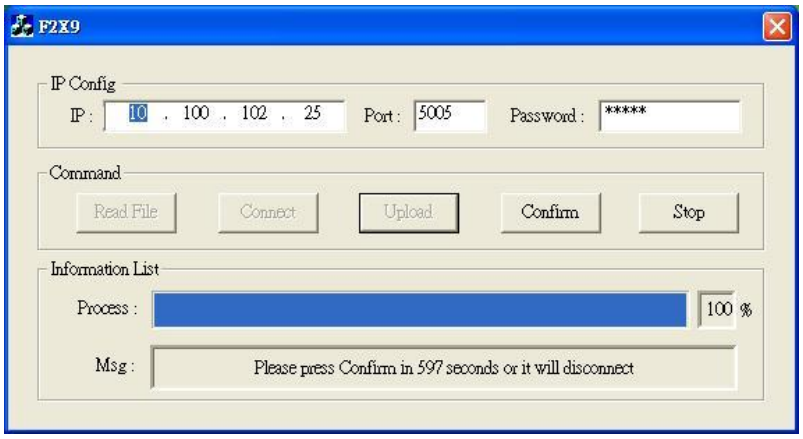

3. Click **Connect** button to connect with DVR system.



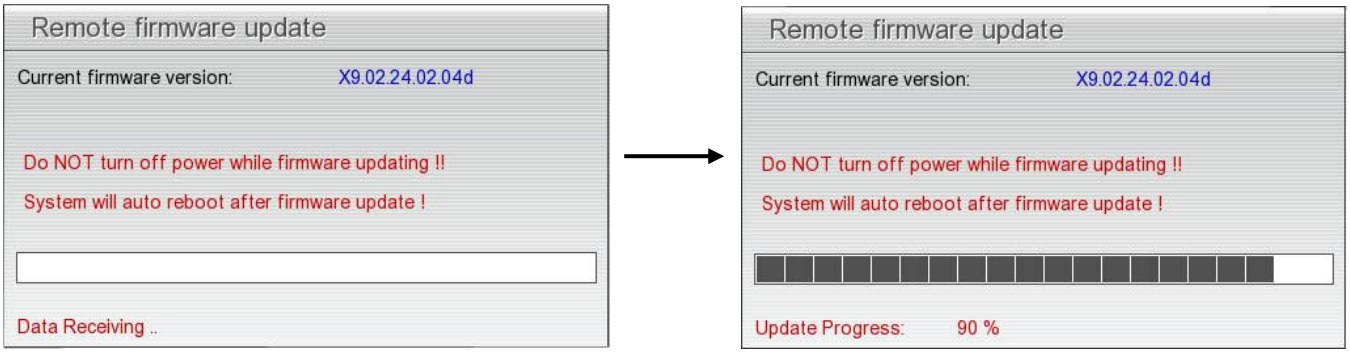

4. After connected with DVR system, click **Upload** button to upload the firmware to DVR system.



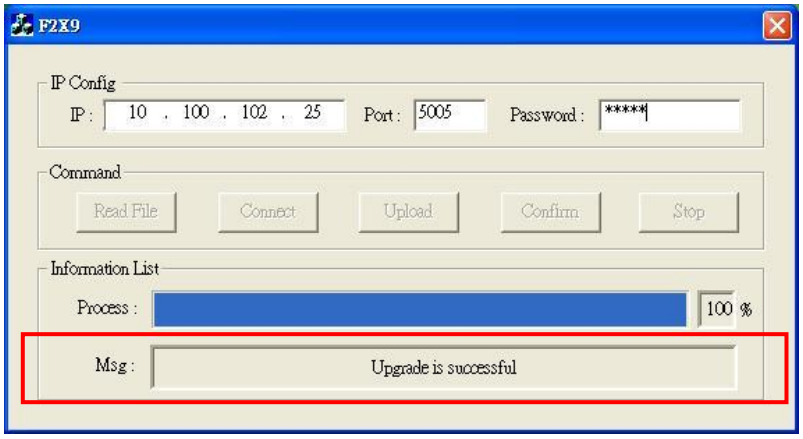
5. Then, click **Confirm** button to start upgrading procedure. If user wants to discontinue the upgrade procedure, click **Stop** button instead **Confirm** button.




6. After confirm the upgrade procedure, the upgrading window is displayed on screen at DVR system site.




7. Wait until the upgrade complete message is displayed on ISP application, the upgrade procedure is completed. The DVR system will reboot automatically.



# Chapter 2 Using the DVR Software

## 2.1 The Way to Operate DVR

There are three ways can be managed the DVR unit:

1. **Using mouse and keyboard**
   Connecting the mouse and keyboard through USB interface, user can manage the DVR unit easily. For the first time using DVR unit, mouse and keyboard is the best way to set up all DVR relevant configurations.
2. **Using Remote Controller(Optional accessory)**
   After DVR unit has been setup, user can use remote controller to preview, playback, backup, reset alarm, output video and so on functions.
3. **Using Front Panel button**
   It's an optional way to operate DVR unit. Front panel button function acts as same as remote control.

For the first time using DVR unit, using mouse and keyboard to setup all configurations.

### 2.1.1 First Time Using the DVR Unit

1. Connect the mouse and keyboard to DVR unit (through USB interface).
2. Power on the DVR unit.
3. For security purpose, the DVR system would require you to enter User ID and Password before it can be accessed. (If this is the first time, enter the default ID [**admin**] and password [**admin**]).


4. The hard disk must be formatted before user can use it with DVR unit. Following the below steps to format the hard disk.

- Before formatting hard disk, please stop all operations on DVR system.
- While formatting hard disk, the CPU usage will be near to 100% and might slow down the DVR system response.

a. Click **Setup** and enter the password
b. Click **System** → **Add**

c. Select the hard disk from device list.
d. Click **Format** button to start formatting
e. When formatting is done, click **OK**.

5. Setup the date and time in order to have correct recording time and date. Following the below steps to setup date and time:
   a. Click **Setup** and enter the password
   b. In **Date and Time Setting** section, click **Setting** button of **System Date and Time**.
   c. Select the date and adjust the time, and then, click **OK**.
6. Following the below steps to connect the IP and analog camera.

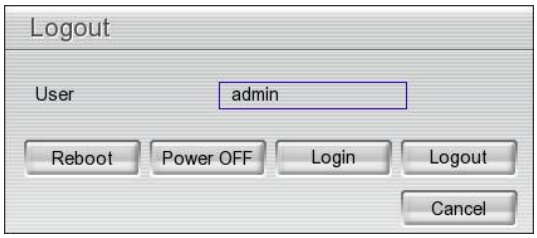
- **To connect analog camera**
  a. Plug the analog camera video cable into DVR video port.
  b. Click **Setup** → **Camera**
  c. Select camera type as **Analog Camera**.
  d. And then, enable the camera.
  e. Click **Edit** button to edit name of camera and enter short description.
  f. Adjust the bright, contrast, hue, and saturation of camera.
  g. Enable **Deinterlace** function if necessary.
  h. Finally, click **OK**.
- **To connect IP camera**
  a. Click **Setup** → **Camera**
  b. Select camera type as IP Camera.
  c. And then, enable the camera.
  d. Click **Add IPCam** button.
  e. Select using **Protocol** or **URL** to connect the IP camera. If user chooses the Protocol, please select **mode**, **video format**, **resolution**, and **channel** of IP camera. If user chooses the URL, please enter the complete URL address of IP camera.
  f. Enter **ID** and **password** if IP camera's access authority is required.
  g. Finally, click **OK**.
  h. To connect another IP camera, follow the above steps.

DVR unit doesn't supply the power to connected external devices.

## 2.1.2 Using the Virtual Keyboard

User can use the Virtual Keyboard when the keyboard is not available. Just click  or right-click screen to call out the virtual keyboard. For uppercase, click **Caps** button. To exit, click **Esc**.

## 2.2 Familiarizing the Buttons in Preview Mode

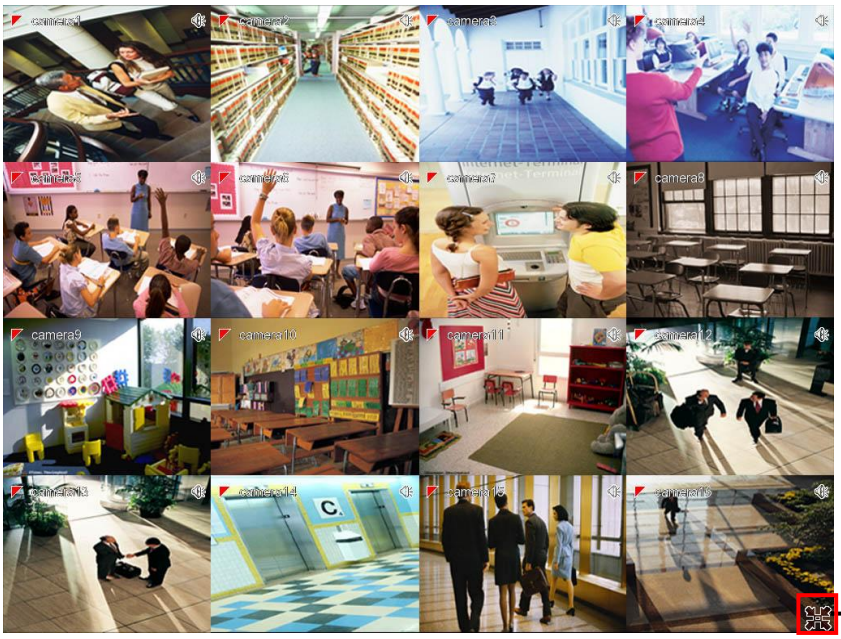
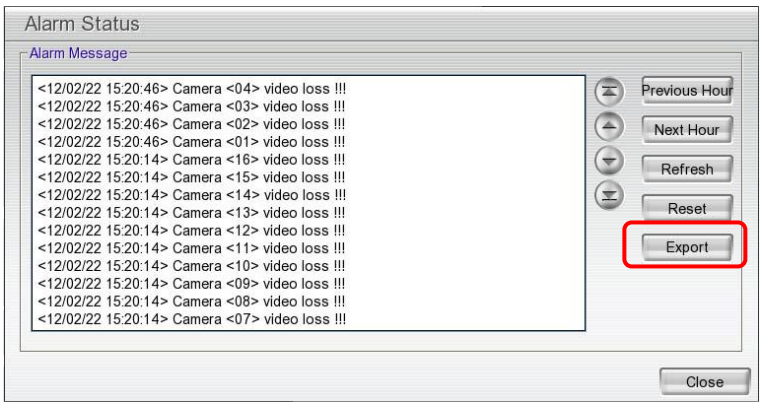

| Name | | Function |
|---|---|---|
| (1) | Exit | - **Reboot:** To restart the DVR system. It is required to enter the password<br>- **Power OFF:** To shut down the DVR system. It is required to enter the password<br>- **Login:** Using different ID to login to DVR system.<br>- **Logout:** To set a system idle time and the DVR system will automatically logout system (see also Chapter 2.2.1).<br>- **Cancel:** To return to DVR application.<br>  |
| (2) | Split Screen Mode | Select from 6 different split screen types to view all the camera, or one camera over the other or alongside on a single screen. It also allows you to switch and view different camera number. |

- When you are in single screen mode, **Right click** and **Drag** a square on the area you want to enlarge. Right-click on screen again, the screen view will back to normal view.
- When you are in full screen mode, partial enlarges does not support.

| | | |
|---|---|---|
| (3) | Record | Start/stop video recording. |
| (4) | EMap | Display the map in each area, and the location of camera/ sensor/ relay and the warning (see also Chapter 2.2.2). |
| (5) | Network | Enable/disable remote system access. This feature allows you to access DVR server from a remote location via internet connection. |
| (6) | Setup | Configure the system settings. (see also Chapter 3) |
| (7) | PTZ | Access PTZ control panel. (see also Chapter 2.2.3) |

| Name | Function |
|---|---|
| (8) Preview | Switch to Preview mode. This allows you to view live camera display. |
| (9) Playback | Switch to Playback mode. This allows you to view the recorded video file. (see also Chapter 2.3) |
| (10) Status bar | Display the recorded date, time, hard disk space and temperature of unit. |
| (11) Camera ID | Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera. |
| (12) Snapshot | Capture and save the screen shot in *.jpg format. |

Please plug the USB pen drive to DVR server before press **Snapshot** button.

| | |
|---|---|
| (13) Event log | Show the record of activities that take place in the system. (see also Chapter 2.2.4) |
| (14) AutoScan | Start/Stop video screen cycle switch. |
| (15) Full screen | View in full screen. To return, press the right button of the mouse or **ESC** on the keyboard or click the arrow icon.   When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all. |
| (16) Alarm | Alert and display warning info. User can export the alarm log to USB pen drive in *.txt format. Click **Export** button and select **Export Date** and the type of **Event log**. Then, click **Export** button.   |
| (17) Virtual Keyboard | Click to enable virtual keyboard. |

| Name | Function |
|---|---|
| (18) De-interlace | To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement. |

The de-interlace function only support on analog camera channel in single screen display mode.

(19) Turbo

To improve the smoothness of live video. The default is enabled(Turbo), but in following situation:

- The channel is IPCam and is in 1 single screen.
- The channel is remote DVR and is in 1 single screen.

Turbo function setup is independent for each channel. To turn off turbo function (Off), click turbo button.

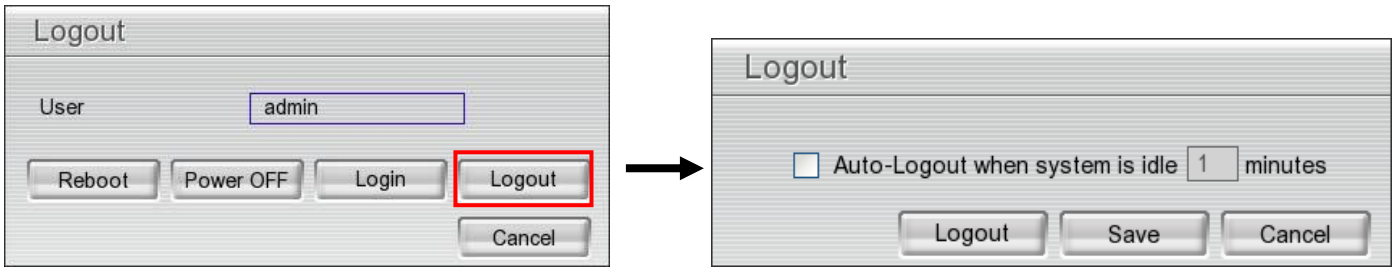
**[Note]** In multiple split screen mode, the turbo button is gray out.

## 2.2.1 To Setup DVR System Logout Time

User can set a system idle time for DVR system to logout the system automatically. The idle time period range is 1 to 60 minutes.

1. In preview mode, click logout button.


2. A Logout dialog is displayed. Click **Logout** option.



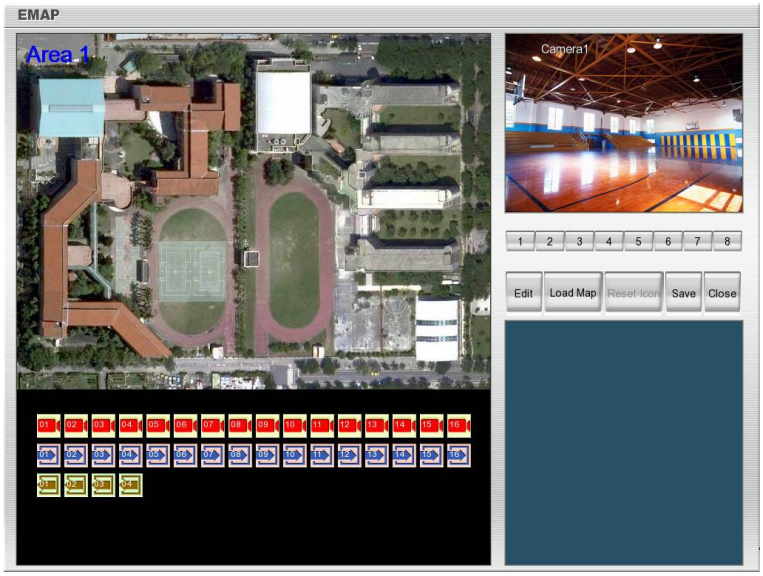

3. In Logout dialog, mark checkbox to enable logout function. Then, enter the system idle time in **minutes** column. The idle time period range is 1 to 60 minutes.
4. Next, click **Save** button to save the setting. To go back to previous dialog, click **Cancel**.
5. If user wants to logout to change login ID, click **Logout** button directly. Then, login with another user ID in Authorization dialog.
6. When the DVR system's idle time has met the time that use has setup, the DVR system will logout the DVR system automatically. The preview surveillance screen will turn to gray and user won't see any live video. The Authorization dialog is displayed for user to login the DVR system.
7. To view the live video, enter the user ID and password to login the DVR system again.

## 2.2.2 Setting Up and Using the Emap

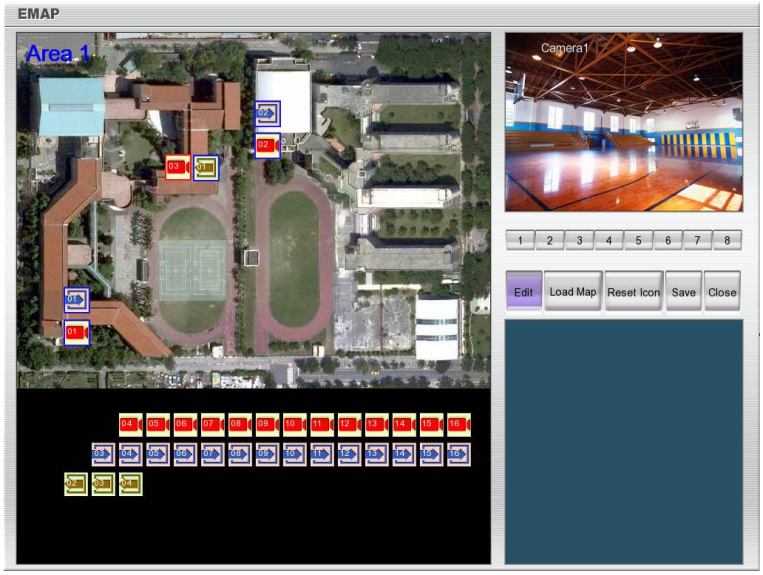
E-Map can hold up to 8 maps in *.jpg or *.bmp format. You may locate the camera, sensor and relay on the map.

**To Set Up the Emap**

1. Click **Emap**.
2. When the Emap screen appears, click the area number (1 to 8 buttons) on where you want to insert the map.



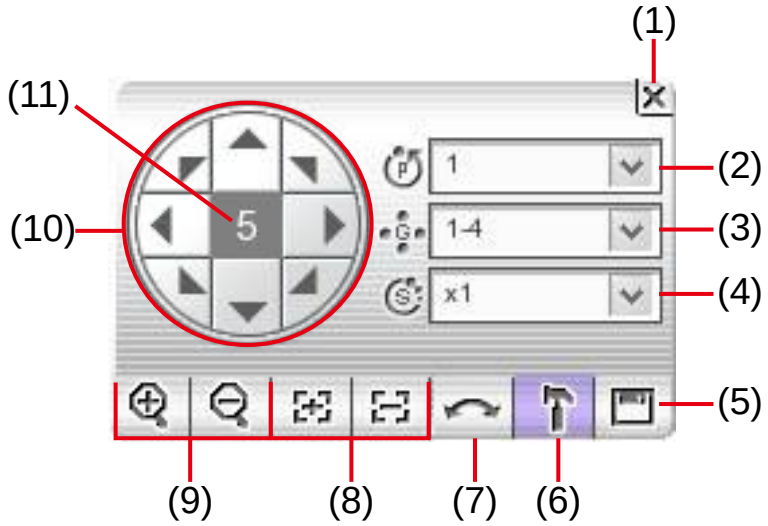

3. Click **Load Map** to insert the map. When the open dialog box appears, locate and select the map and click **Open**.
4. When the inserted map appears on the Emap screen, click **Edit**. You may now drag the camera, sensor, and relay icons to its place on the map. Icons on the map can be relocated anywhere. If you are going to locate the icon on the map to other area, you need to drag the icon to the black pane at the bottom of the Emap screen and then switch to the area on where you want to locate the icon. To bring all the icons back to the black pane at the bottom of the Emap screen, click **Reset** Icon.
5. When you are done, click **Save** button to save the new setting. To exit Emap screen, click **Close**.



**To Use the Emap**

1. Click **E-map**.
2. In the Emap screen, click the camera icon to switch on the area where the camera is located on the map and to display the video at the upper right corner of the Emap screen. At the lower right corner of the Emap screen, it lists all the warning message.
3. Click **Close** to exit Emap screen.

## 2.2.3 Familiarizing the Buttons in PTZ Camera Controller




| Name | Function |
|---|---|
| (1) Close | Exit PTZ camera controller. |
| (2) Camera preset position number | Move the PTZ camera to the preset point. |
| (3) Group AutoPan | Select to automatically operate PTZ camera in group. |
| (4) Direction button moving speed | Adjust the moving speed of the PTZ camera lens. This speed will apply to the **(10) Direction buttons**' moving speed only. |
| (5) Save Camera preset position | Save the PTZ camera preset position number. Select the camera and click the preset position number and save it. |
| (6) Setup | Configure PTZ cameras.(see also Chapter 2.2.3.1 and Chapter 2.2.3.2) |
| (7) AutoPan | Operate the PTZ cameras automatically based on the selected camera group preset position number. User needs to select the **(3) Group AutoPan**, then, click **(7)Auto Pan** button. |
| (8) Focus +/- | Adjust the focus manually to produce clear image. |
| (9) Zoom +/- | Zoom in and out the image. |
| (10) Direction buttons | Adjust and position the focal point of the PTZ camera. The direction buttons is depended on the PTZ camera has supported. |
| (11) Camera ID pane | Display the PTZ camera number that is being operated. |

### 2.2.3.1 Setup the Analog PTZ Camera

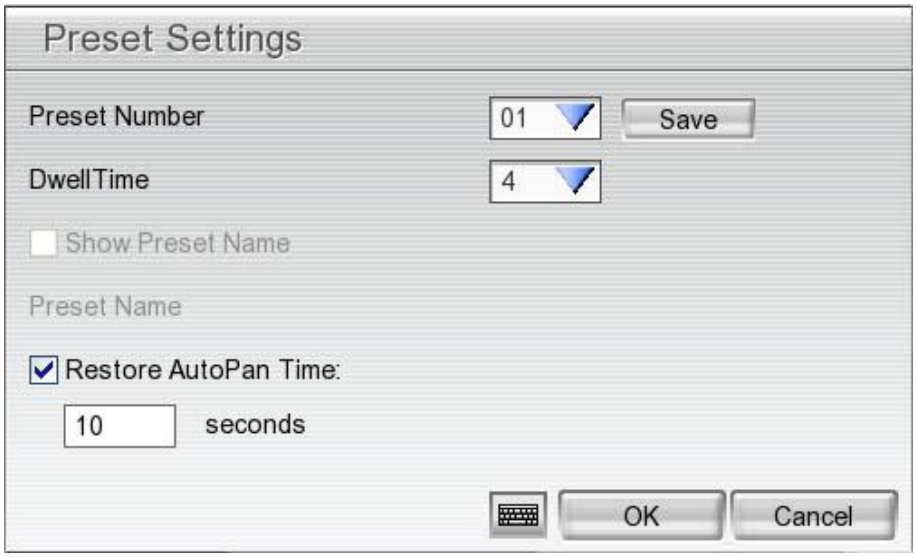
1. Select the channel of analog PTZ camera on Preview UI.
2. Click **PTZ** button from preview UI.
3. In the PTZ control panel, click **Setup** (see also Chapter 2.2.3).
4. When the PTZ Setup dialog box appears, select the camera number and check the **Use PTZ** box.


5. In the Connection Settings section, fill in the following selections. Then, click **Save** to keep the settings.
   - **COMPort:** The port that the PTZ camera is connected
   - **ID:** PTZ camera ID number
   - **Baud Rate:** Please refer to the user's manual of the PTZ camera to make sure the baud rate.
   - **Protocol:** Please refer to the user's manual of the PTZ camera to make sure what protocol is using.
6. In the **Preset Setting** section, use the control panel to adjust the position of the PTZ camera and select the preset number to assign a number for the PTZ camera current position. Set the **DwellTime** (1-60 sec) for how long the PTZ camera stays in that position before it moves to the next one. After is done, click **Save** to keep the **Preset Setting** settings.
7. **Restore AutoPan Time:** set a time period for restoring auto path function after the PTZ camera has been moved manually. Mark the check box and set the time period in second.
8. Repeat step 4 and 5, if you want to save another PTZ camera position.
9. After finished all configurations, click **OK** to exit. Click **Cancel** will exit and without saving the settings.

### 2.2.3.2 Setup the IP PTZ Camera

When IP PTZ camera has successful connected with the DVR system, user can use the PTZ function directly without any configuration. To make connection of IP PTZ camera, please refer to Chapter 3.2.1.
In PTZ camera panel, user can setup the preset position of the camera. The number of preset positions are depend on the IP PTZ camera that user has connected. For example: A brand of IP PTZ camera only supports 4 preset positions. Therefore, user only can setup 4 preset positions on the DVR system. User can refer to the user's manual of the IP PTZ camera to make sure the number of the preset positions has supported.
Please follow the below steps to configure the preset position.

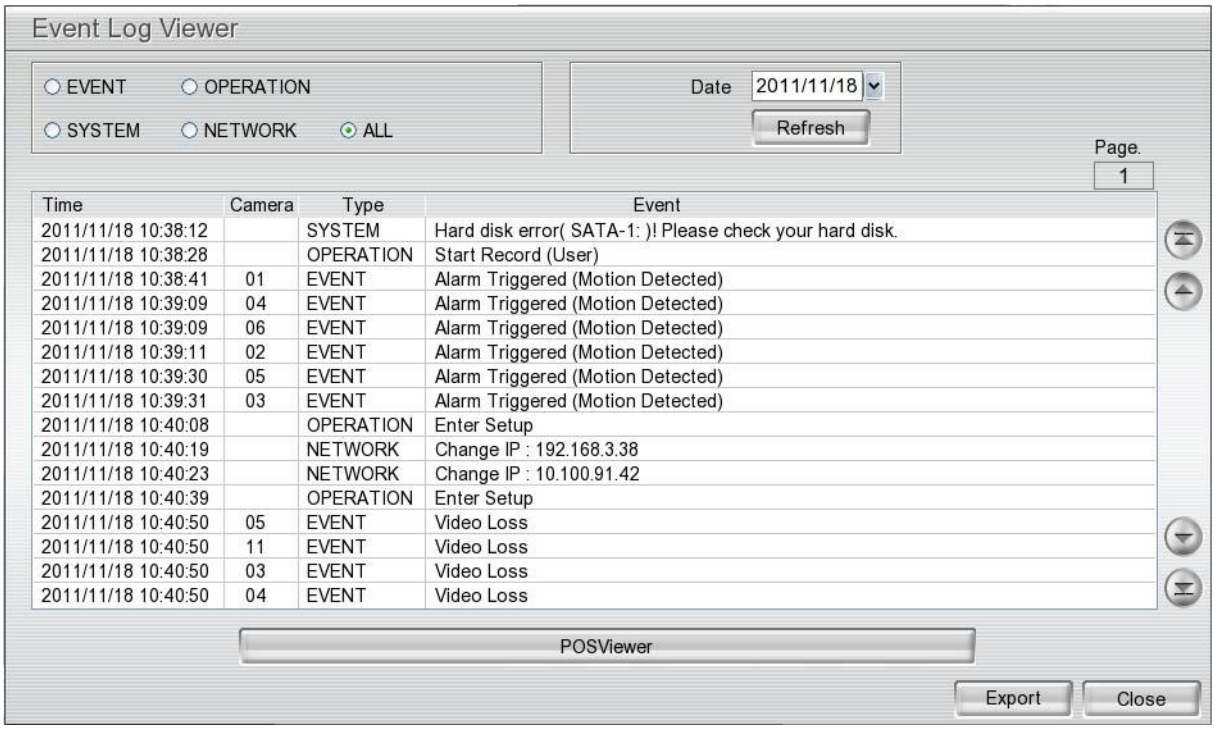
1. On Preview UI, select the channel that is an IP PTZ camera connection.
2. Click **PTZ** button from Preview UI and PTZ control panel will show up.
3. In the PTZ control panel, using the arrow button to adjust the position of IP PTZ camera.
4. And then, click **Setup** (see also Chapter 2.2.3). The Preset Settings window will show.




5. Select the **Preset Number** to assign a number for the PTZ camera current position. And then, click **Save** to save the setting.
6. Set the **DwellTime** for how long the PTZ camera stays in that position before it moves to the next one.
7. Repeat step 3 to 6, if you want to save another preset position.
8. **Restore AutoPan Time:** set a time period for restoring auto path function after the PTZ camera has been moved manually. Mark the check box and set the time period in second.
9. Click **OK** to complete the setting.

## 2.2.4 Using Event Log Viewer

Show the record of activities that take place in the system. Click **Close** button to exit Event Log Viewer window.

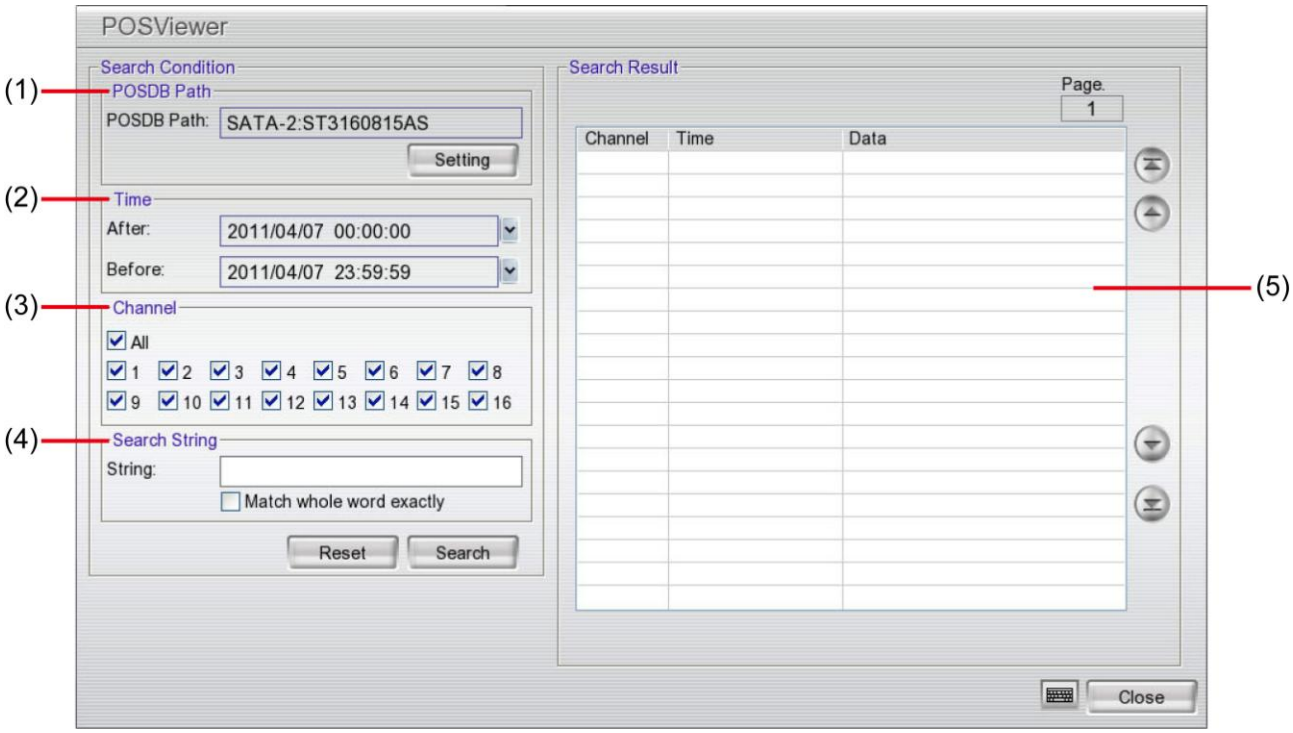


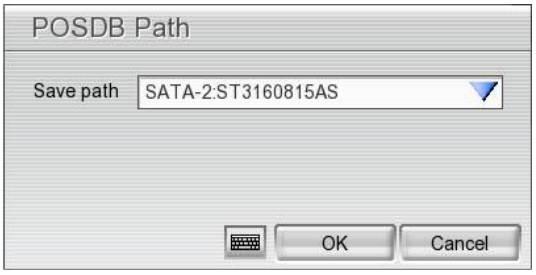

1. Click the **Event Log** button on DVR system main interface. The Event log viewer window will show up.
2. Select the **Date** to view.
3. To filter the records, select and click the select button to display **Event**, **System**, **Operation**, **Network** or **All**.
4. Click  button to go next page and click  button to go to the last page. To go to previous page, click  button. Click  button will back to the first page. In **Page** column, it displays the current page number.
5. To view POS event log, click POSViewer bar to call out the POSViewer window (see also Chapter 2.2.4.1).
6. User can export the event log to USB pen drive in *.txt format. Click **Export** button and select **Export Date** and the type of **Event log**. Then, click **Export** button. The export event log file is in a Backup folder.

Please plug the pen drive to DVR unit before click export button.

### 2.2.4.1 Using POSViewer

To clear all setting, click **Reset** button. Click **Close** button will exit POS Viewer window.

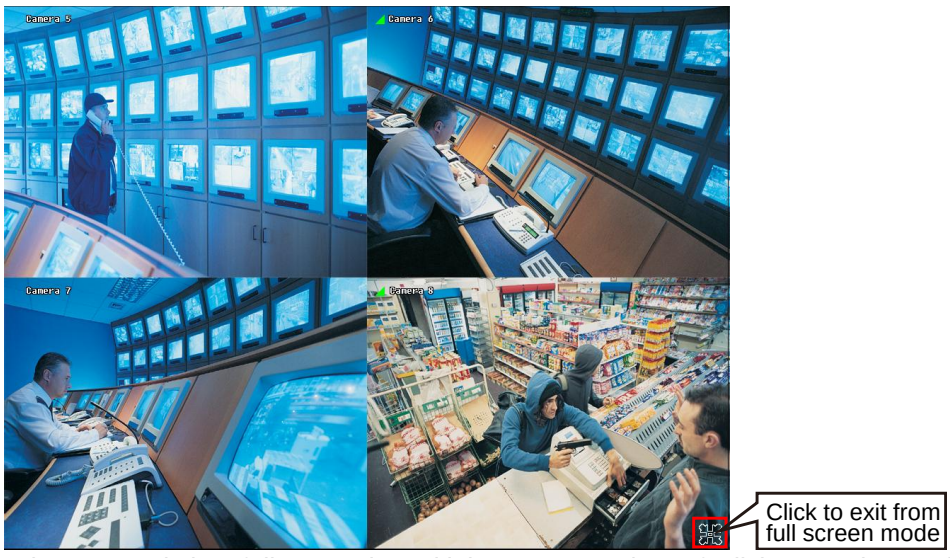



| Name | Function |
|---|---|
| (1) POSDB Path | The storage path for POS event log. Click **Setting** to change the storage path.   |
| (2) Time Before/After | Set a time period before and after of POS event log. |
| (3) Channel | Select the POS event log of channel |
| (4) Search String | Enter specific key word or word string to search the POS event log. Mark the "**Match whole word exactly**" box if wants to find exactly key word or word string of POS event log. Click **Search** button to start searching. |
| (5) Search Result | Display the POS event log of search result. Click button to go next page and click button to go to the last page. To go to previous page, click button. Click button will back to the first page. In **Page** column, it displays the current page number. |

## 2.3 Familiarizing the Buttons in Playback Mode

To switch in Playback mode, click **Playback** button at the lower right corner of Preview mode user interface.


| Name | Function |
|---|---|
| (1) Split Screen Mode | Select from 6 different split screen type to playback the recorded video file of all the cameras or one camera over the other or alongside on a single screen. |
| | − When you are in single screen mode, **Right click** and **Drag** a square on the area you want to enlarge. Right-click on the screen again, the screen view will back to normal view.<br>− When you are in full screen mode, partial enlarges does not support. |
| (2) Progress bar | Show the progress of the file being played. You may move the bar to seek at any location of the track.<br>When in single screen playback mode, the colors in progress bar have different means.<br>■ Green color: a motion was detected and recorded<br>■ Blue color: is a general (always) recording file and no any event or motion happen during recording<br>■ Red color: the sensor was triggered while recording<br>■ Black color: no record file at the time period<br>■ Yellow color: the video loss happen while recording |
| | The progress bar is designed and drawn based on key frame only. |

| Name | Function |
|---|---|
| (3) Hour Buttons | Select and click to playback the recorded video file on the specific time frame. |
| | The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file. |
| (4) Playback Control Buttons | **Begin:** Move at the beginning of the recorded video file.<br>**Previous:** Go back to the previous frame.<br>**Slower:** Play the recorded video file at the reduce speed from 64x, 32x, 16x, 8x, 4x, 2x, 1x, 1/2X, 1/4X.<br>**Rewind:** Wind back the recorded video file.<br>**Pause:** Briefly stop playing the recorded video file.<br>**Play:** Play the recorded video file.<br>**Faster:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x, 32x, or 64x.<br>**Next:** Go to the next frame.<br>**End:** Go to the end of the recorded video file. |
| (5) Date | Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. |
| | The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file. |
| (6) Preview | Switch to Preview mode. |
| (7) Playback | Switch to Playback mode. This allows you to view the recorded video file. |
| (8) Status bar | Display the recorded date, time and play speed. |
| (9) Camera ID | Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera. |
| (10) Export | Export includes Snapshot, Output Video Clip, and Backup function.<br>■ **Snapshot:** Capture and save the screen shot either in *.jpg format.<br>■ **Output Video Clip:** Save the segmented file in *.dvr format to external USB storage device (see also Chapter 2.3.1).<br>■ **Backup:** Save the playback file to USB device or DVD-ROM disk(see also Chapter 3.6) |
| | Please plug the USB pen drive to DVR server before execute **Export** function (Snapshot, Output Video Clip, and Backup). |
| (11) Segment | Keep a portion of the recorded video (see also Chapter 2.3.1). |
| (12) Full screen | View in full screen. To return, press the right button of the mouse or **ESC** on the keyboard or click the arrow icon.<br>  <br>When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all. |

| Name | Function |
|---|---|
| (13) Event log | Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or All. |
| (14) Bookmark | Mark a reference point when reviewing the recorded video file to which you may return for later reference (see also Chapter 2.3.2). |
| (15) Visual Search | Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second(also see Chapter 2.3.3) |
| (16) Find Next | Search for the next event. You can use this when you are using Event Search function. |
| (17) Event Search | Search from the recorded activities that were recorded in event log (i.e., Sensor, Motion, Video Loss). (see also Chapter 2.3.4) |
| (18) De-interlace | To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement. |

De-interlace function only support for analog camera channel in single screen display mode.

(19) Turbo

To improve the smoothness of live video. The default is enabled(Turbo), but in following situation:

- The channel is IPCam and is in 1-split screen.
- The channel is remote DVR and is in 1-split screen.

Turbo function setup is in depended for each channel. To turn off turbo function (Off), click turbo button.

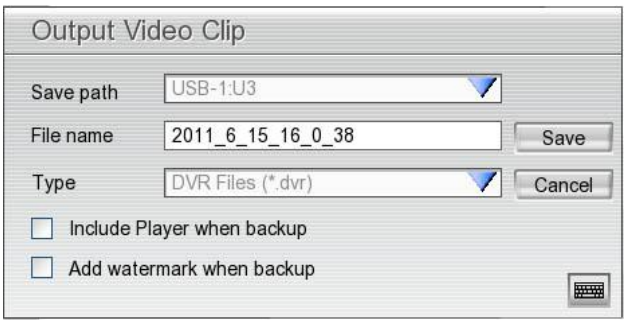
**[Note]** In multiple split screen mode, the turbo button is gray out.

## 2.3.1 To Cut and Save the Portion of the Recorded Video

1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.


2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation, click **Segment** button again.

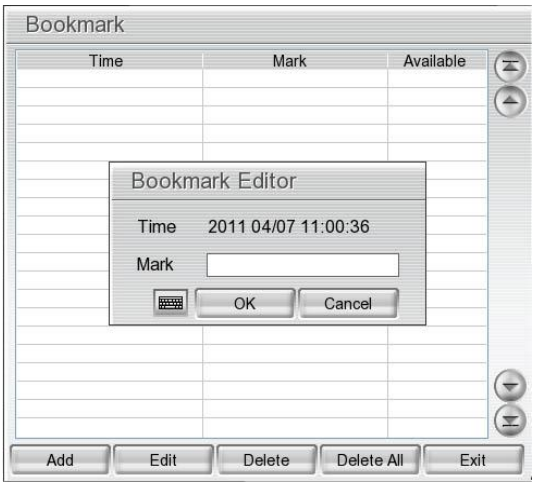

3. Click **Export** button and select **Output Video Clip** to save the wanted portion. User can rename the **File name**. Mark "**Include Player when backup**" option to include a Qplayer application in backup file for palyback backup video clip later on. Mark "**Add watermark when backup**" option to have watermark protection on backup file and user can have watermark exam on Qplayer application.




4. In the **Save As** dialog box, locate on where user wants to save the file, type the filename, and select the video format.
5. To playback the backup video clip, using Qplayer application that is included in backup folder.

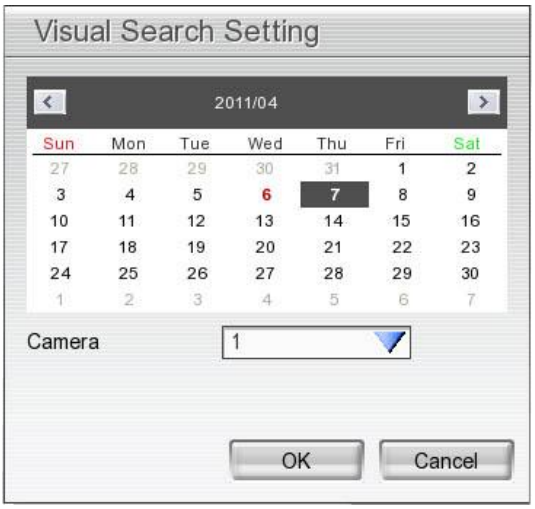
## 2.3.2 To Bookmark a Video Section

1. Click **Bookmark** button
2. In the Bookmark dialog box, you may do the following:
   - **Add** to create the new reference mark in the bookmark list.
   - **Edit** to change the mark description.
   - **Delete** to remove the selected reference mark in the list.
   - **Delete All** to remove all the reference marks in the list.
   - **Exit** to close Bookmark dialog box.
3. Select and click one in the bookmark list to review the file.

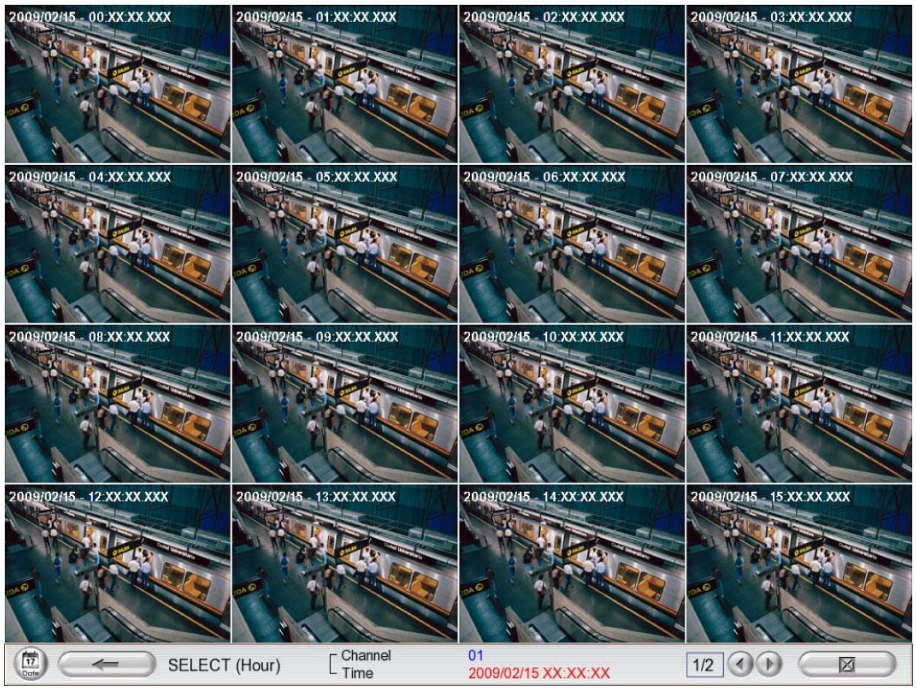


## 2.3.3 To Search Using Visual Search

1. Click **Visual Search**.
2. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.




3. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every Minutes of that hour, and every Seconds of that minute. Using  and  to go previous and next page of page. To go back last time section (hour, minute, or second), click  . To close event search, click  . Click  to select different date of video for visual search.



4. On the time second screen, click the channel and playback button will appear. Click playback button to playback the selected channel video frame.

## 2.3.4 To Search Using the Event Search

1. Click on the video screen on where you want to search.
2. Click **Event Search**. The Event Search Setting dialog box would appear on the screen.


3. In the Event Search Setting dialog box, check the type of condition you want to search. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching click 

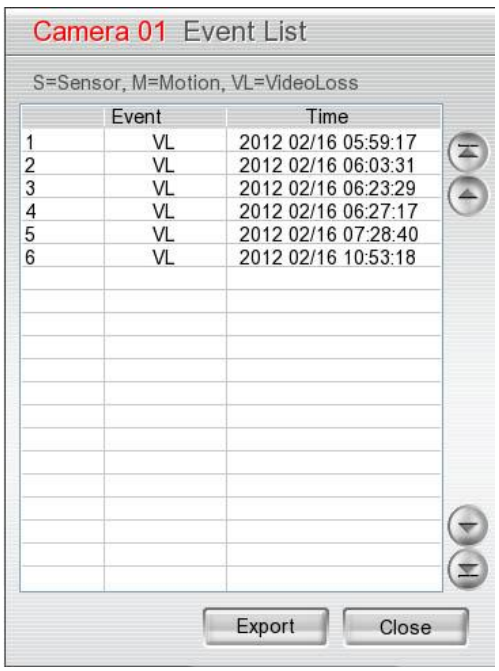
.
4. You may also set to search and list all the result. In the **Search Duration** section, set the **Begin Time** and **End Time**. Set the **Searching Interval** time that system won't list out the same events in a period of time that user has setup. Then, click **OK** to start searching.

---

The DVR system will automatically set the date of **End Time** at 3 days later of **Begin Time**. If event data are less than 3 days, the DVR system will set End Time at current date. Time of End Time is adjustable.

---

5. When the Event list appear, click and select the item you want to view. User can export the event list to USB pen drive. Plug in the USB pen drive to the USB on DVR and click **Export** button in Event List window.

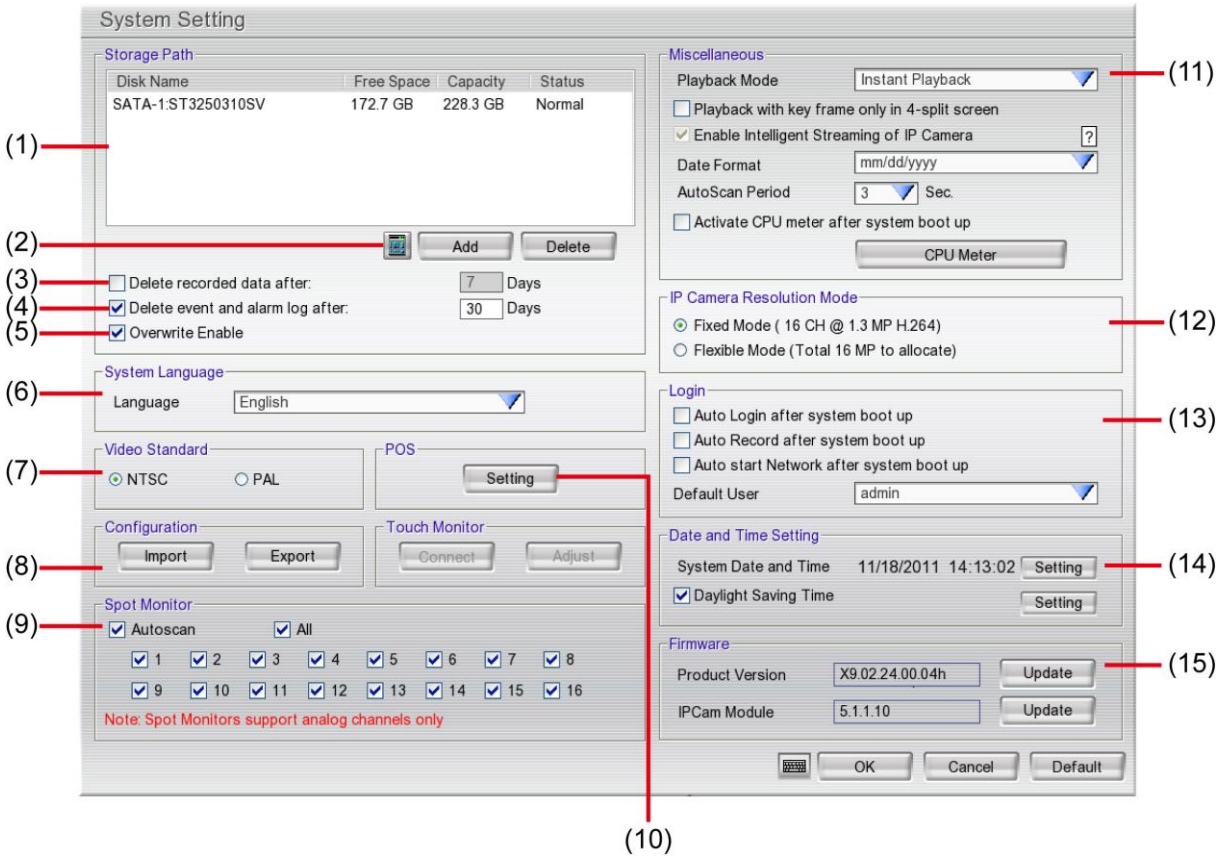


# Chapter 3 Customizing the DVR System

In the Preview screen mode, click Setup button to customize your DVR. When the DVR configuration setup selection appears, select and click the buttons you want to change the setting.


## 3.1 System Setup

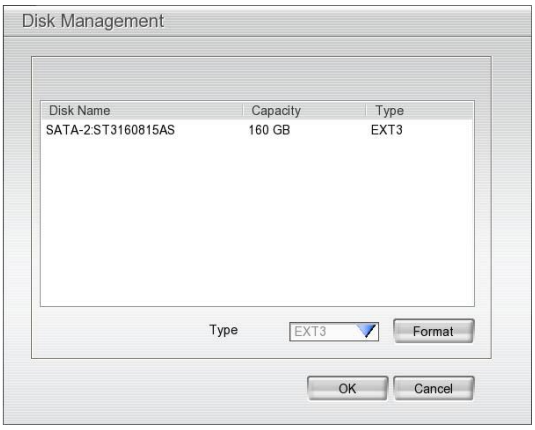
In the System Setting dialog box, click **OK** to accept the new settings, click **Cancel** to exit without saving.




**(1) Storage Path**

Set the HDD on where to save the data. In case you have more than one storage device, the system automatically saves the data to the next storage device. To insert another storage device, click **Add** and select the storage path. To remove the selected path, click **Delete**.If the hard disk is the first time for DVR system, please format the hard disk before starting to use it. To format the hard disk, select the hard disk and click **Format** button.

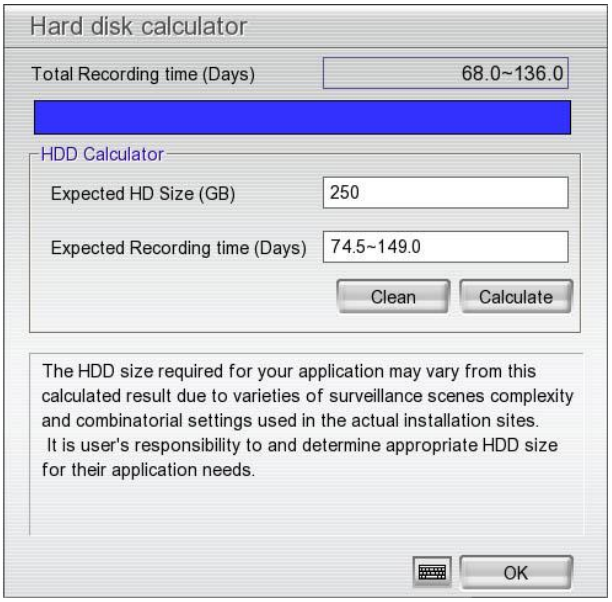
- Before formatting hard disk, please stop all operations on DVR system.
- While formatting hard disk, the CPU usage will be near to 100% and might slow down the DVR system response.




**(2) Hard Disk Calculator**

Stop recording before using hard disk calculator function.

Estimate the hard disk recording capacity. The result of calculation is a rough value which only for reference. The hard disk record capacity will be varied by the real record quality and complexity of video scene.
Click button, the hard disk calculator window will show up. **Total Recording time(Days)** is the current hard disk recording capacity. Enter the expect hard disk size or expect recording time in **Expected HD Size(GB)** or **Expected Record time(Days)**, and then click **Calculate** button. Click **OK** to exit the hard disk calculator window. The hard disk calculation is based on the recording setup and current hard disk capability.




**(3) Delete recorded data after**

If you want the system to automatically erase the data after a certain days, enable the **Delete recorded data after** check box and enter the number of days in **Days** text box.

**(4) Delete event and alarm log after**

If you want the system to automatically erase the event and alarm log after a certain days, enable the **Delete event and alarm log after** check box and enter the number of days in **Days** text box.

**(5) Overwrite Enable**

When there is not enough free space to record one hour data, the system automatically replaces the oldest data.

**(6) Language**

Customize the system to display the tool tips and dialogs based on the selected language. Default language is in English.

**(7) Video Standard**

Change and select the proper video system according to your camera video system. If the video system setting is wrong, the video would appear abnormal.

**(8) Configuration**

Backup a copy of all the settings and allows you to regain the same settings back. To save the current settings, click **Export**. To replace the settings with the one you have saved, click **Import**.

Please plug the USB pen drive to DVR server before **Import** or **Export** the configuration from or to USB pen drive.

**(9) Spot Monitor**

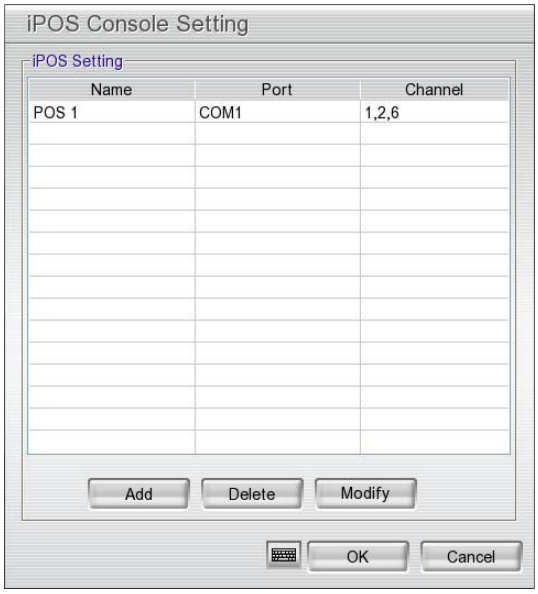
Select the camera user wants to display on spot monitor or select **All** for all cameras. Mark **Autoscan** to enable display to take turns automatically.

**(10) POS**

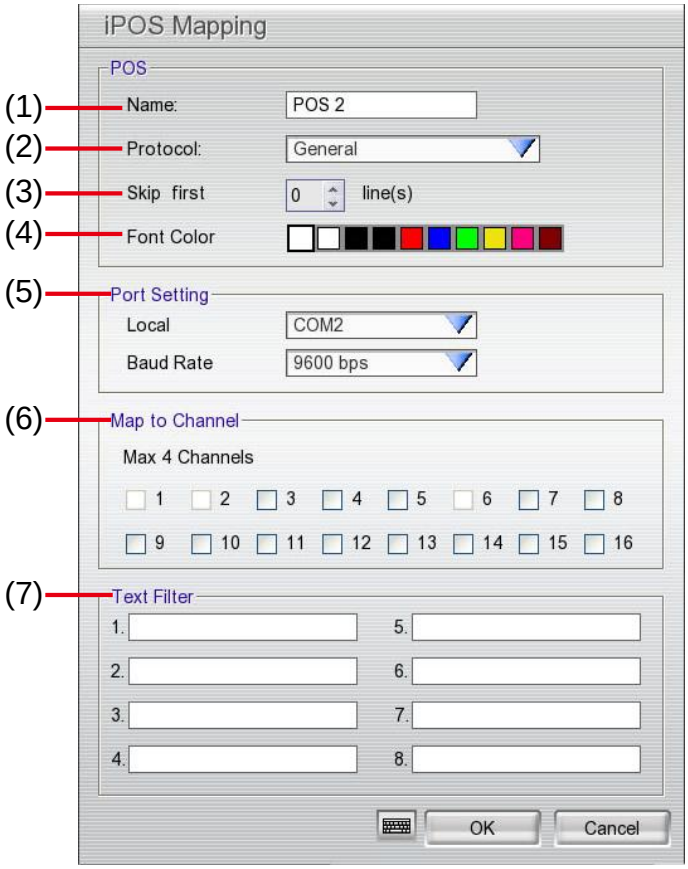
- Please using Databox device to connect POS machine with DVR unit in order to use POS function.
- POS and Mask function cannot be enabled at the same time.

Set from which camera screen to display the data from the POS equipment. Click **Setting**, to set the POS Console Setting.

1. In the POS Console Setting dialog box, click **Add** to set a new POS setting, **Modify** to change the POS setting, and **Delete** to remove the selected POS setting. Click **OK** to save and close POS Console Setting.



2. In the POS Mapping dialog box, click **OK** to accept the settings and **Cancel** to exit without saving the new setting.




**(1) Name:** Enter a name to identify the POS.
**(2) Protocol:** Select the protocol.
**(3) Skip first:** Set the number of lines you want to be removed.
**(4) Font Color:** Select the text color of the POS data.
**(5) Port Setting :** Select the **Local**(Com port) where it is connected and **Baud Rate**.
**(6) Map to Channel:** Select to which camera number to display the transaction text.
**(7) Text Filter:** Enter the word you want to be removed.

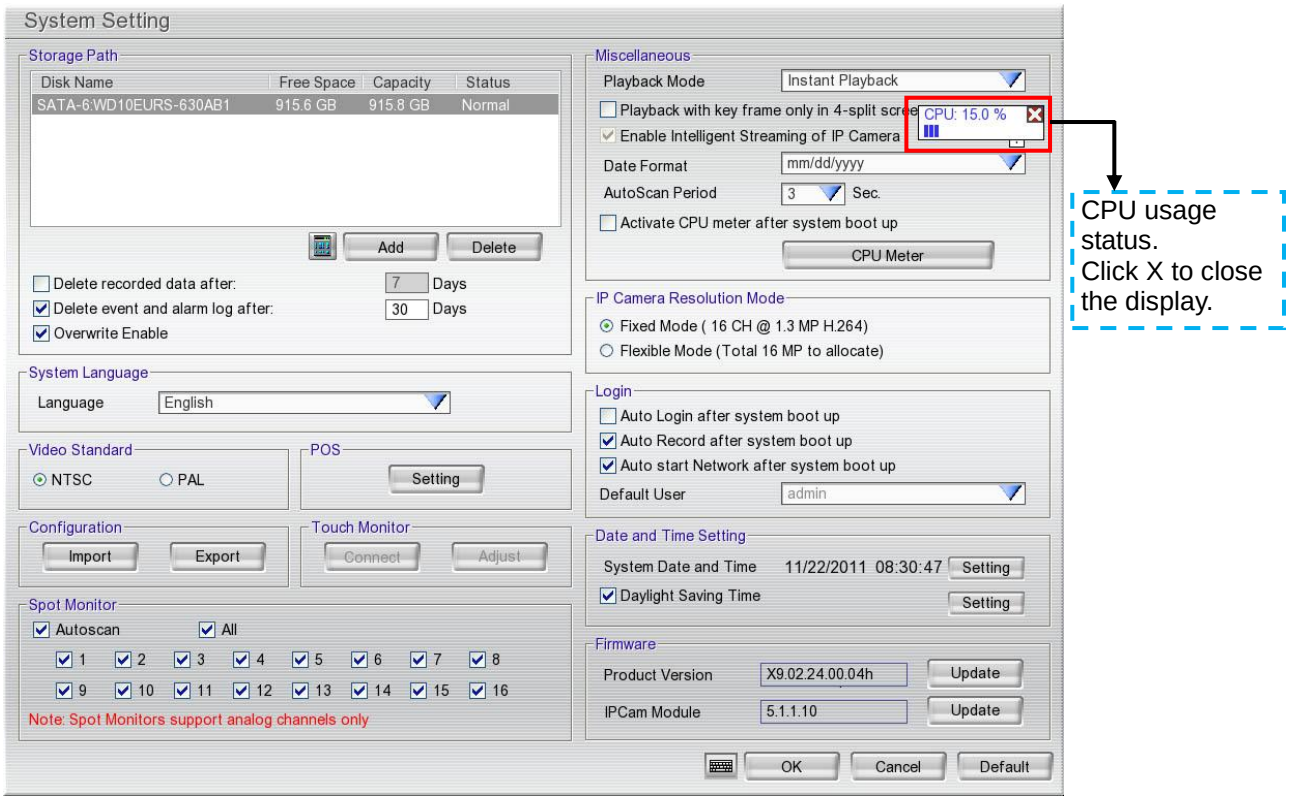
**(11) Miscellaneous**

- **Playback mode:** Select the mode of playback the video.
  - **Select date and time:** Select the date and time which user wants to playback.
  - **Play the last file:** Automatically playback the video from the last hour.
  - **Instant Playback:** Automatically playback the video which has just recorded.
- **Playback with key frame only in 4-split screen:** Enable to only playback key frame when in 4-split screen playback mode.
- **Enable Intelligent Streaming of IP camera:** T The DVR now supports 3 streaming for preview, recording, and remote site on Aver IP camera series. User can setup these 3 streaming in Detail of (5) IP camera information in Chapter 3.2.1. Click **?** mark will show up the intelligent streaming information dialog box.

DVR supports first 4 channels for IP camera within intelligent streaming is enabled.

- **Date Format:** Select the date format which wants to display in select date and time playback mode
- **Auto Scan Period:** Set the time gap of the Auto Scan function from 3 to 10 seconds. This automatically switches to the next video in cycle depending on the set time gap.
- **Activate CPU meter after system boot up:**Mark to enable the CPU usage status display on the

screen automatically when system boot up. User can manually to enable by clicking the **CPU Meter** button.




### (12) IP Camera Resolution Mode

IP camera resolution mode is related to Camera Setting.

- **Fixed Mode(16CH@1.3MP H.264)**
  The DVR system supports 16CH IP camera at 1.3MP for each channel.
- **Flexible Mode(Total 16MP to allocate)**
  DVR system supports 16MP total for 16 IP camera channels (in any code type – H.264, MPEG4, MJPEG). The 16MP is divided into 8MP each for odd and event channels. A channel maximum supported value is 5MP.

### (13) Login

Enable the conditions in Login section you want the system to automatically carry out.

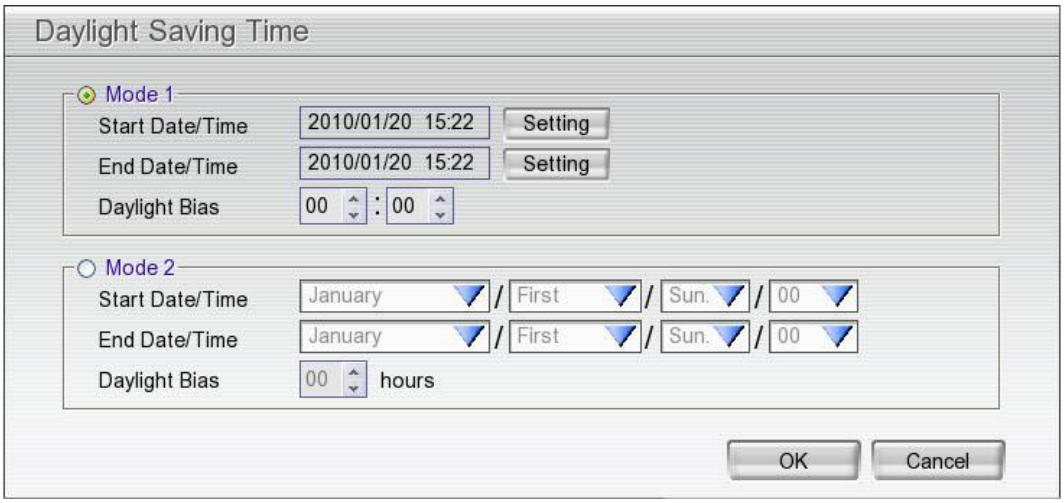
- **Auto Login after system boot up**
  Execute the DVR when the operating system is started.
- **Auto Record after system boot up**
  Automatically start video recording when the DVR is executed.
- **Auto start Network after system boot up**
  Automatically start network connection when the DVR is executed.
- **Default user**
  Automatically log in to the selected default user when the DVR is executed.

**(14) Date and Time Setting**

Click **Setting** button of System Date and Time to setup current date and time.

Mark **Daylight Saving Time** to enable daylight saving function.

- **Daylight Saving Time:** Click **Setting** to setup **Start** and **End Date/Time**. User can depends on daylight saving time mode in your country to select **Mode 1** or **Mode 2**. Mode 1 is setting up specific start date/time and end date/time. Mode 2 is setting up fixed day of month in every year for start and end date/time.




- **Daylight Bias:** Assign a time that it is for daylight saving time offset in your time zone. For example: if the time zone is in U.S. Eastern, the time offset is 1 hour.

**(15) Firmware**

- **Product Version Update:** To update firmware, please refer to Chapter 1.6.
- **IPCam Module Firmware Update:** To update firmware of IP camera, please contact your sales dealer.

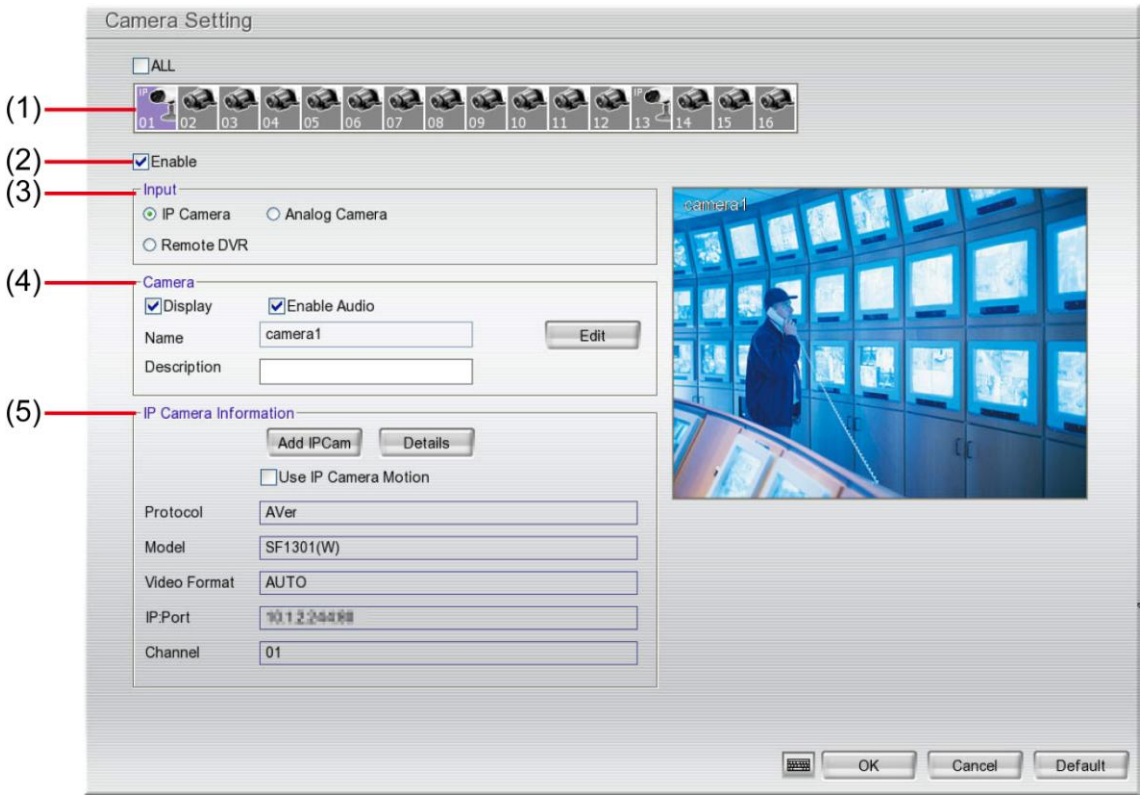
# 3.2 Camera Setup

The DVR system supports 8/16 cameras in combination of analog and IP cameras, only analog cameras, or only IP cameras.

## 3.2.1 To Setup IP Camera(Fixed Mode)

Click **Default** will back to the factory default value.

EH6108H+ only supports 8 channels.




**(1) Camera Icons**

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

**(2) Enable**

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

**(3) Input**

Select the camera type as **IP Camera**.

**(4) Camera**

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio**
  Enable/disable audio of the camera if IP camera has supported.
- **Name**
  Click **Edit** to change the camera name.

DVR supports Chinese characters on remote site (remote setup).

- **Description**

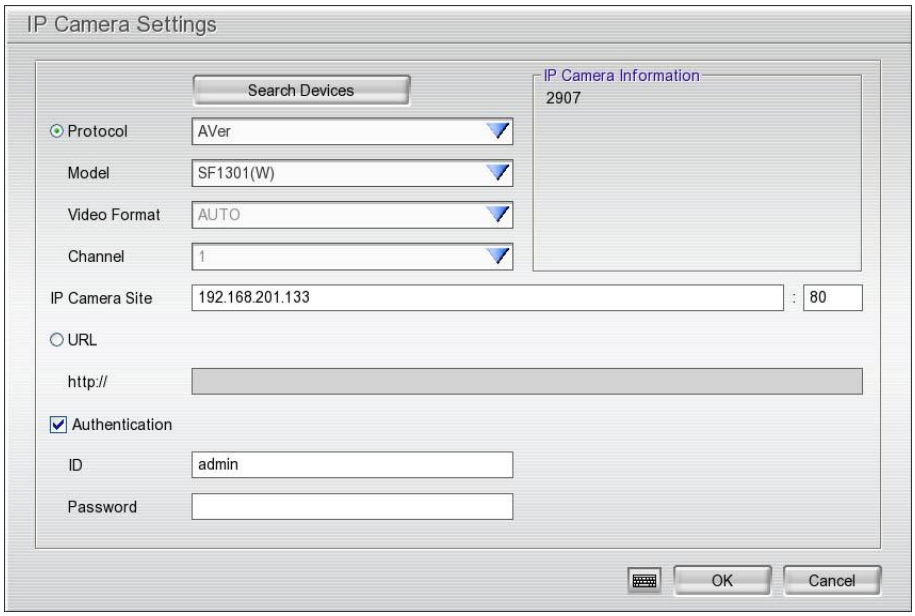
  Add a short comment

**(5) IP Camera Information**

To setup IP camera and display current IP camera information.

- **Using IP Camera Motion:** Enable to use the motion detection function of IP camera if the IP camera has support motion detection and the motion recording will based on IP camera's motion detection setting.

1. Click **Add IPCam** to add the IP camera.




2. Click the radio button of **Protocol** to start setup IP camera.
3. Select the **Protocol**, **Model**, **Video Format**, and **Channel** of the IP camera. Otherwise, user can use Search Device button to find the IP cameras(see also Using Search Device to connect IP camera).
4. Enter IP address and connecting port in **IP Camera Site** column.
   - ✓ **Search Device:** If use doesn't know any IP cam protocol, click **Search Device** button to find the IP cameras that can be detected on your LAN network; not all IP camera on your LAN network can be found(also see Chapter 3.2.2.1).

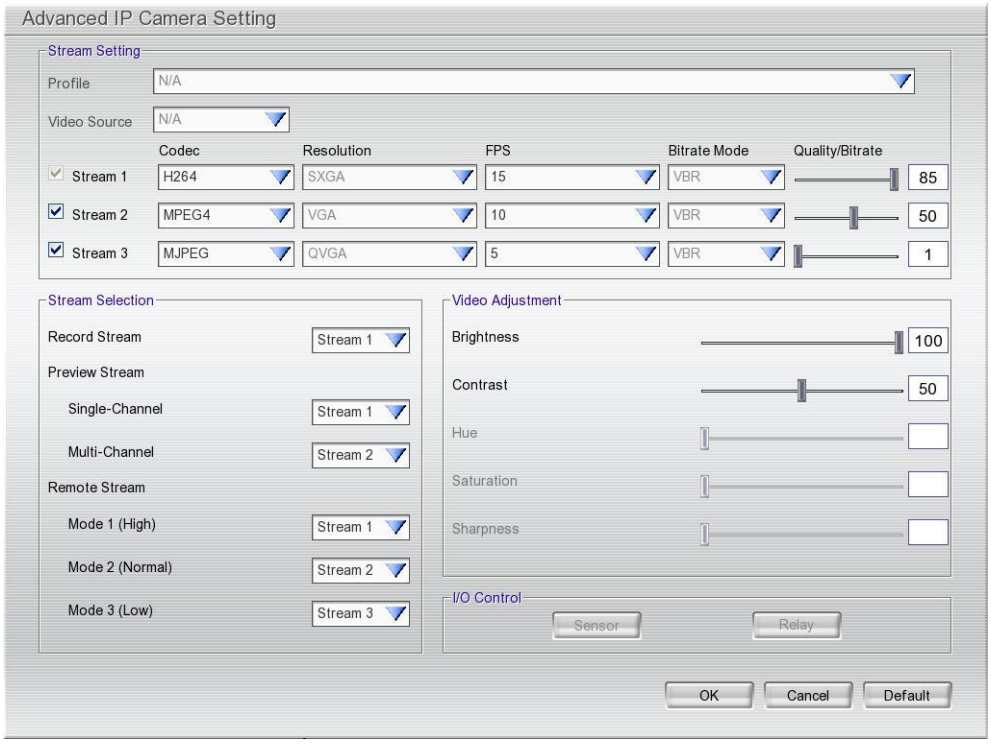
   For supported IP camera list, please refer to the IP camera support list on web site (http://surveillance.aver.com/).

5. Also, user can enter URL of IP camera instead of IP address.

   User only can choose use Protocol or URL one at a time; can't choose both at the same time.

6. If the IP camera has authority request, please enable **Authentication** and enter **ID** and **Password**.
7. Click **OK** to connect with the IP camera.

■ **Detail:** The setting of advanced IP cameras are related to the **Intelligent Streaming** function in System setting. Click **Detail**. Click **Default** will back to the factory default value.




✓ **Profile:** For **ONVIF** connection only. User can select the setting value that provides by IP camera.

✓ **Video Source:** For **ONVIF** connection only. User can select the value that provides by IP camera.

The Profile and Video Source will be available when the IP camera hasn't been intergraded by AVer and depend on the IP camera has supported.

✓ **Stream Setting:** user can setup **Codec**, **Resolution**, **FPS**, **Bitrate Mode**, and **Quality Bitrate** of **Stream 1, Stream2,** and **Stream 3** on the selected IP camera channel. The Stream 1 is enabled in default.

✓ **Stream Selection:** user can setup which stream (**Stream 1** ~ **Stream 3**) to use on **Record**, **Preview**(Quad and Single mode), and **Remote site**.

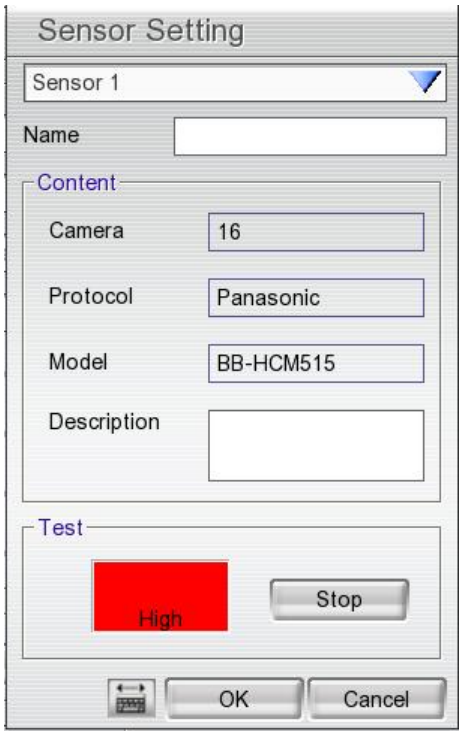
✓ **Video Adjustment:** user can adjust **Brightness** and **Contrast** of IP camera.

The stream setting only support for AVer IP camera series.

✓ **I/O Control:** Setup the sensor and relay that is embedded on the IP camera.

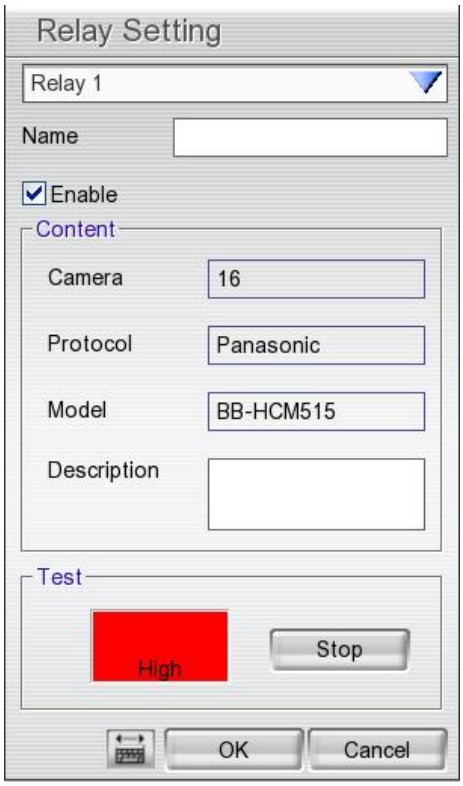
■ **Sensor Setting**

1. Click **Sensor** button.
2. Click the drop-down list and select the sensor ID number.
3. Enter sensor name in **Name** column
4. The system automatically detects the camera and input relates information. In the Content section, enter sensor **Description**.
5. In the test section, click **Test** to check the sensor status. **Red** is high and **Green** is low.
6. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.




■ **Relay Setting**

1. Click **Relay** button.
2. Click the drop-down list and select the relay ID number.
3. Enter relay name in **Name** column
4. The system automatically detects the camera and input relates information. In the Content section, enter relay **Description**.
5. In the test section, click **Test** to trigger the relay status. **Red** is high and **Green** is low.
6. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



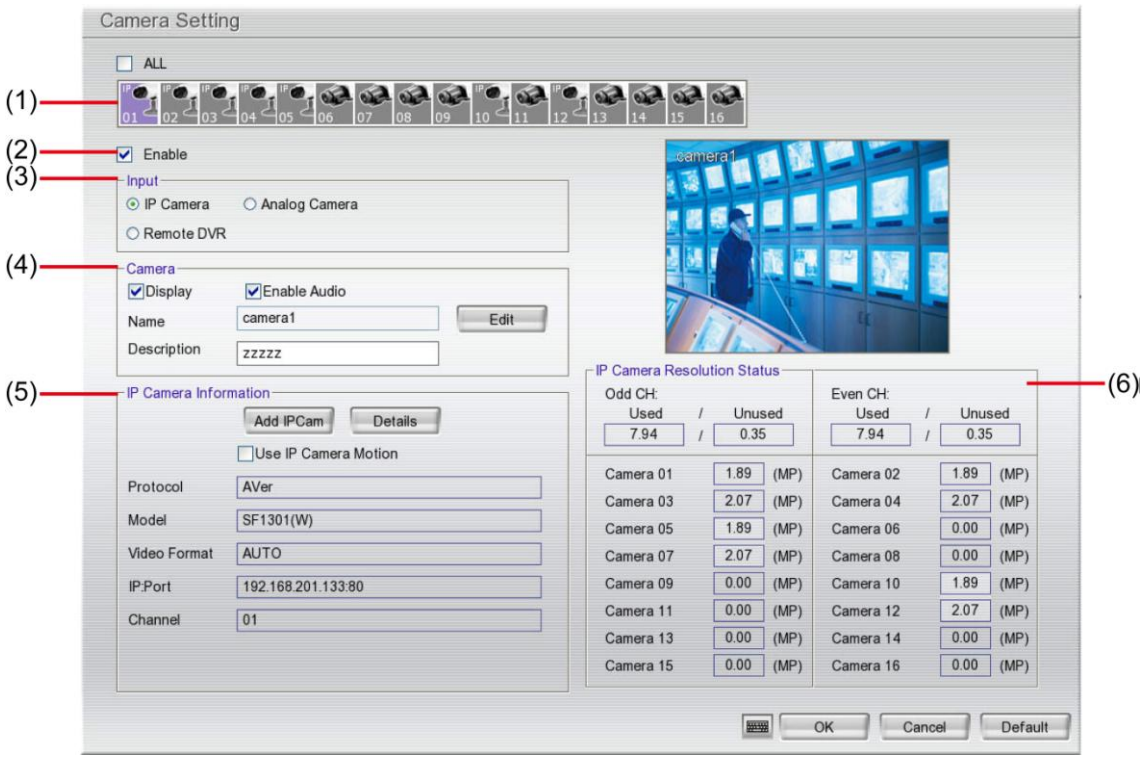
## 3.2.2 To Setup IP Camera(Flexible Mode)

When user select IP camera resolution mode as **Flexible mode** in System Setting, the Camera Setting UI is displayed the IP camera channel's resolution value that has been calculated and transform by DVR system.

In Flexible Mode, DVR system supports 16MP total for 16 IP camera channels (In any code type – H.264, MEPG4, MEPG). The 16MB is divided into 8MP each for odd and event channels. A channel maximum supported value is 5MP.

Click **Default** will back to the factory default value.

EH6108H+ only supports 8 channels.




**(1) Camera Icons**

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

**(2) Enable**

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

**(3) Input**

Select the camera type as **IP Camera**.

**(4) Camera**

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio**
  Enable/disable audio of the camera if IP camera has supported.

- **Name**

  Click **Edit** to change the camera name.

DVR supports Chinese characters on remote site (remote setup).

- **Description**

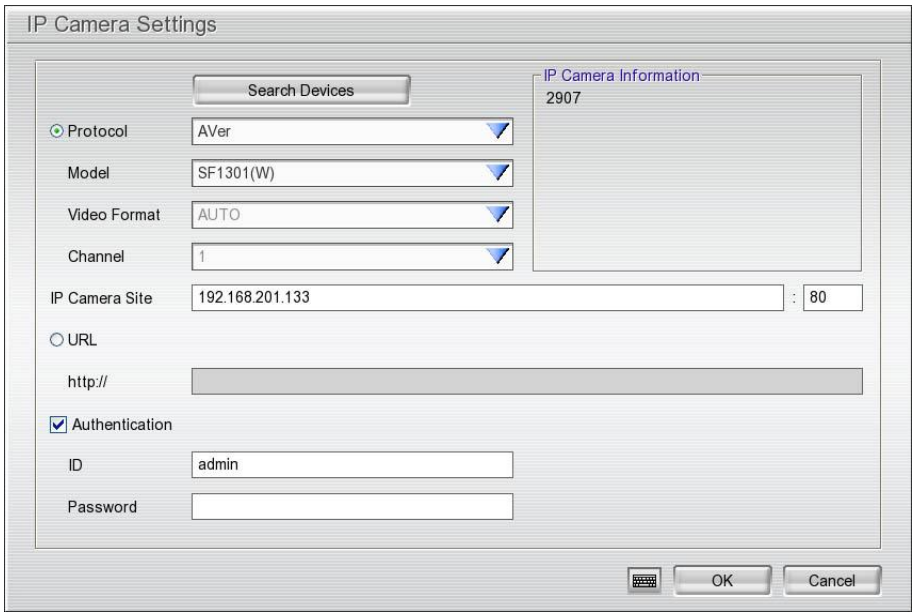
  Add a short comment

**(5) IP Camera Information**

To setup IP camera and display current IP camera information.

■ **Using IP Camera Motion:** Enable to use the motion detection function of IP camera if the IP camera has support motion detection and the motion recording will based on IP camera's motion detection setting.

1. Click **Add IPCam** to add the IP camera.




2. Click the radio button of **Protocol** to start setup IP camera.
3. Select the **Protocol**, **Model**, **Video Format**, and **Channel** of the IP camera. Otherwise, user can use Search Device button to find the IP cameras(see also Using Search Device to connect IP camera).
4. Enter IP address and connecting port in **IP Camera Site** column.
   - ✓ **Search Device:** If use doesn't know any IP cam protocol, click **Search Device** button to find the IP cameras that can be detected on your LAN network; not all IP camera on your LAN network can be found (also see Chapter 3.2.2.1).

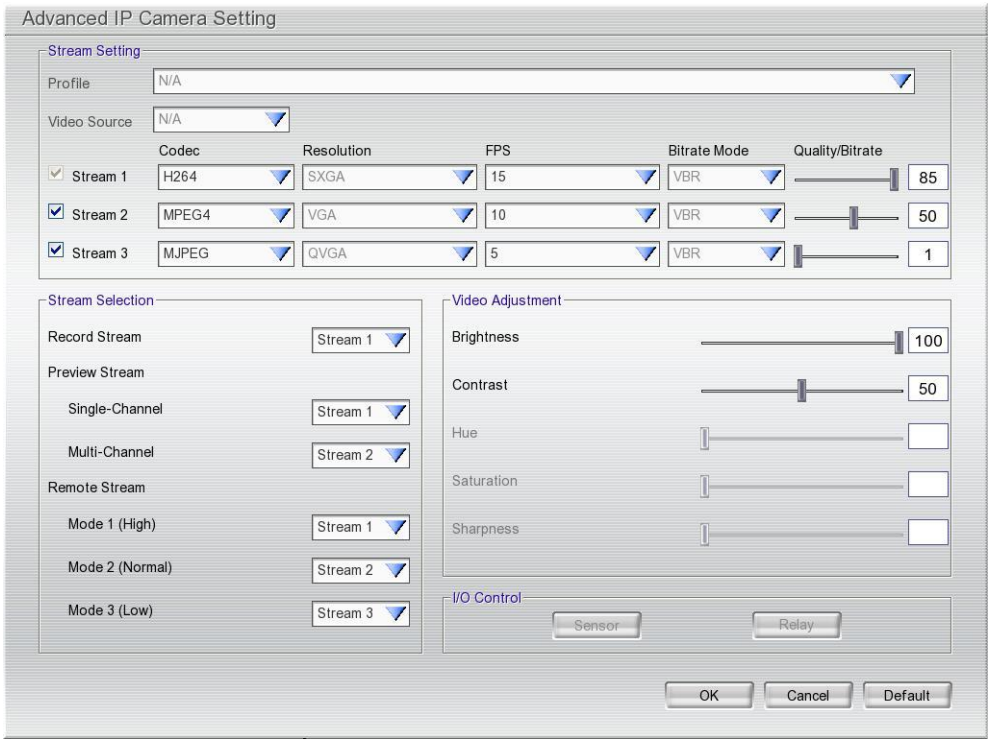
   For supported IP camera list, please refer to the IP camera support list on web site (http://surveillance.aver.com/).

5. Also, user can enter URL of IP camera instead of IP address.

   User only can choose use Protocol or URL one at a time; can't choose both at the same time.

6. If the IP camera has authority request, please enable **Authentication** and enter **ID** and **Password**.
7. Click **OK** to connect with the IP camera.

■ **Detail:** The setting of advanced IP cameras are related to the **Intelligent Streaming** function in System setting. Click **Detail**. Click **Default** will back to the factory default value.




✓ **Profile:** For **ONVIF** connection only. User can select the setting value that provides by IP camera.

✓ **Video Source:** For **ONVIF** connection only. User can select the value that provides by IP camera.

The Profile and Video Source will be available when the IP camera hasn't been intergraded by AVer and depend on the IP camera has supported.

✓ **Stream Setting:** user can setup **Codec**, **Resolution**, **FPS**, **Bitrate Mode**, and **Quality Bitrate** of **Stream 1, Stream 2,** and **Stream 3** on the selected IP camera channel. The Stream 1 is enabled in default.

✓ **Stream Selection:** user can setup which stream (**Stream 1** ~ **Stream 3**) to use on **Record**, **Preview**(Quad and Single mode), and **Remote site**.

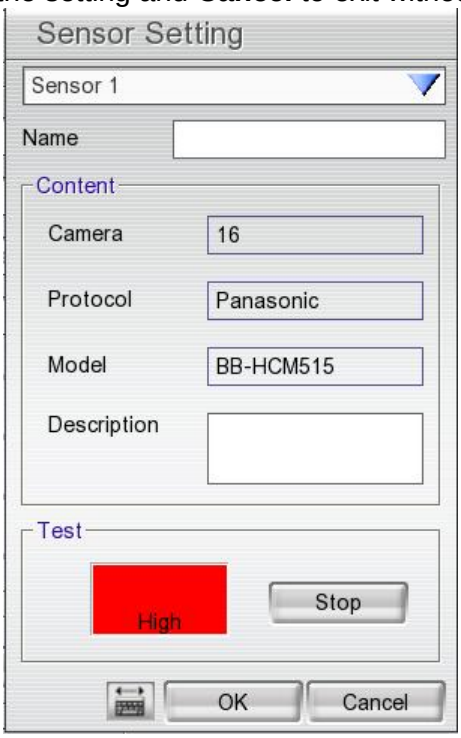
✓ **Video Adjustment:** user can adjust **Brightness** and **Contrast** of IP camera.

The stream setting only support for AVer IP camera series.

✓ **I/O Control:** Setup the sensor and relay that is embedded on the IP camera.

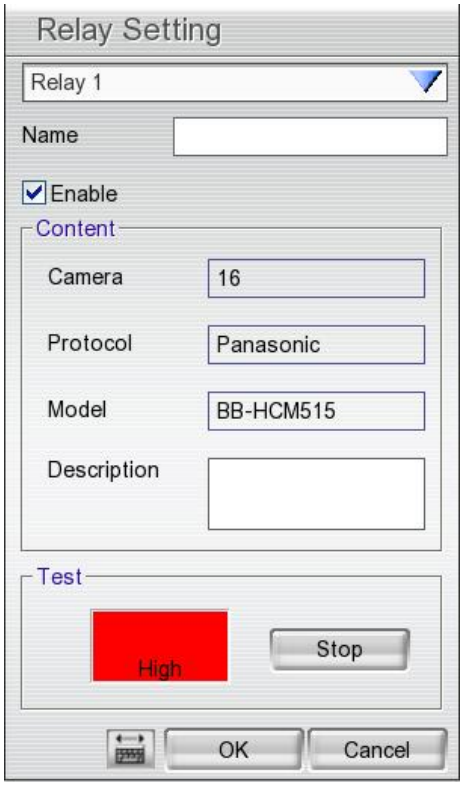
■ **Sensor Setting**

1. Click **Sensor** button.
2. Click the drop-down list and select the sensor ID number.
3. Enter sensor name in **Name** column
4. The system automatically detects the camera and input relates information. In the Content section, enter sensor **Description**.
5. In the test section, click **Test** to check the sensor status. **Red** is high and **Green** is low.
6. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.




■ **Relay Setting**

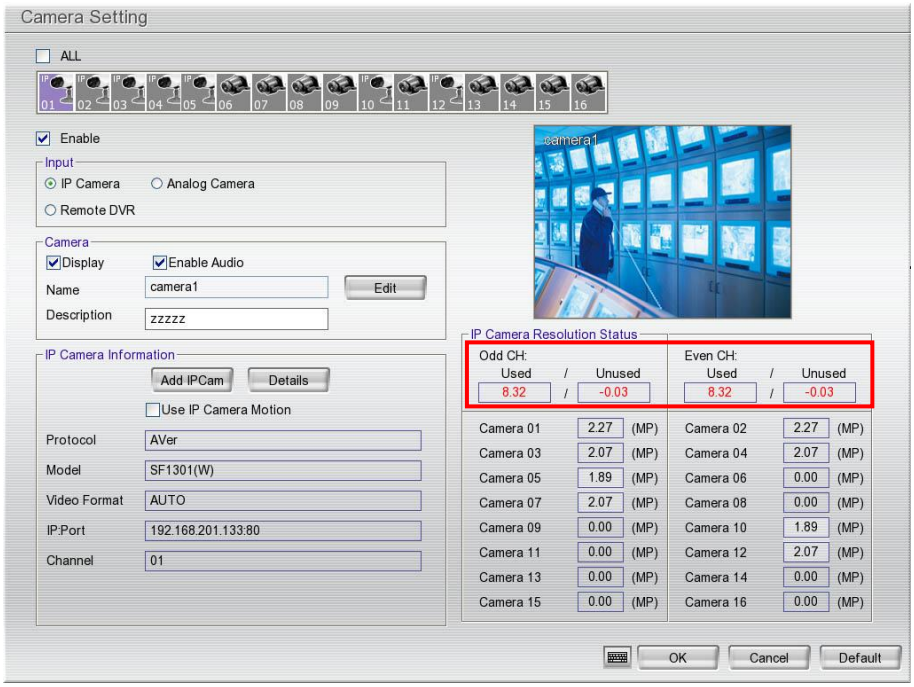
1. Click **Relay** button.
2. Click the drop-down list and select the relay ID number.
3. Enter relay name in **Name** column
4. The system automatically detects the camera and input relates information. In the Content section, enter relay **Description**.
5. In the test section, click **Test** to trigger the relay status. **Red** is high and **Green** is low.
6. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



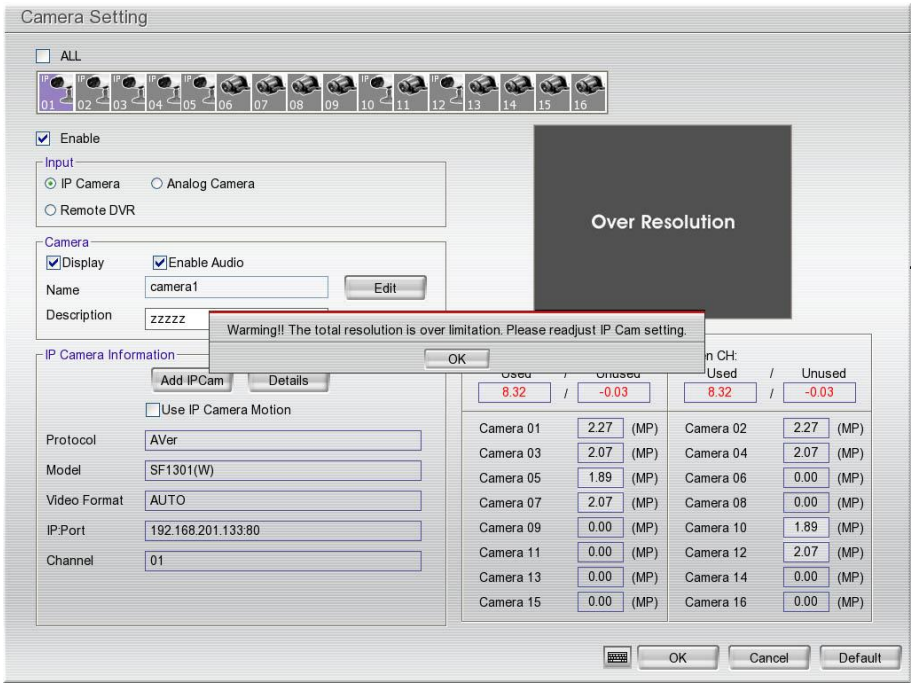
### (6) IP Camera Resolution Status

The total resolution values are including both IP camera channel and Remote DVR channel.

It displays the each IP camera channel's current resolution value that is calculated and transformed by DVR system. The 16 MP is divided into 8MP each for odd and events channels. When the total resolution value is over 8MP, the **Used** and **Unused** value text is displayed in red color.




If user ignores or doesn't notice the resolution is over 8MP and click OK button to save the setting, then, a warning message dialog is shown up. Only resolution values are less or equal 8MP, the DVR system allows user to save the setting.

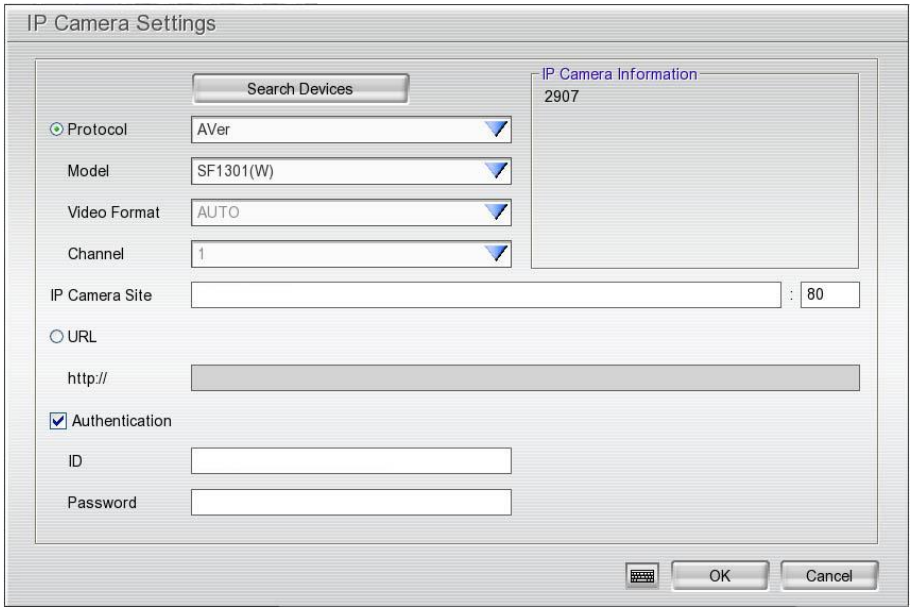


When one of connected IP camera's resolution has been changed and is caused resolution over 8MP, the channel screen is displayed text word "**Over Resolution**".

### 3.2.2.1 Using Search Device to Connect IP Camera

The Search Device function help user to find the IP cameras on your LAN network that can be detected by DVR system. User can directly click the IP camera from search result list and connect to the selected IP camera without to enter any data of IP camera.

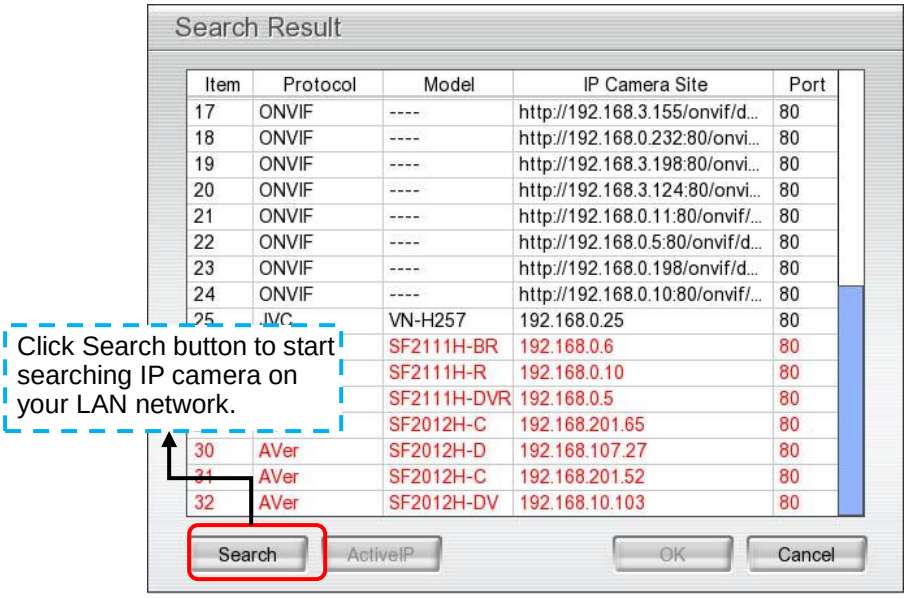
1. In preview mode, click **Setup** > **Camera** and select the **Input** is **IP camera**.
2. Next, click **Add IPCam** to call out IP camera Settings window.




3. Click **Search Device** button.

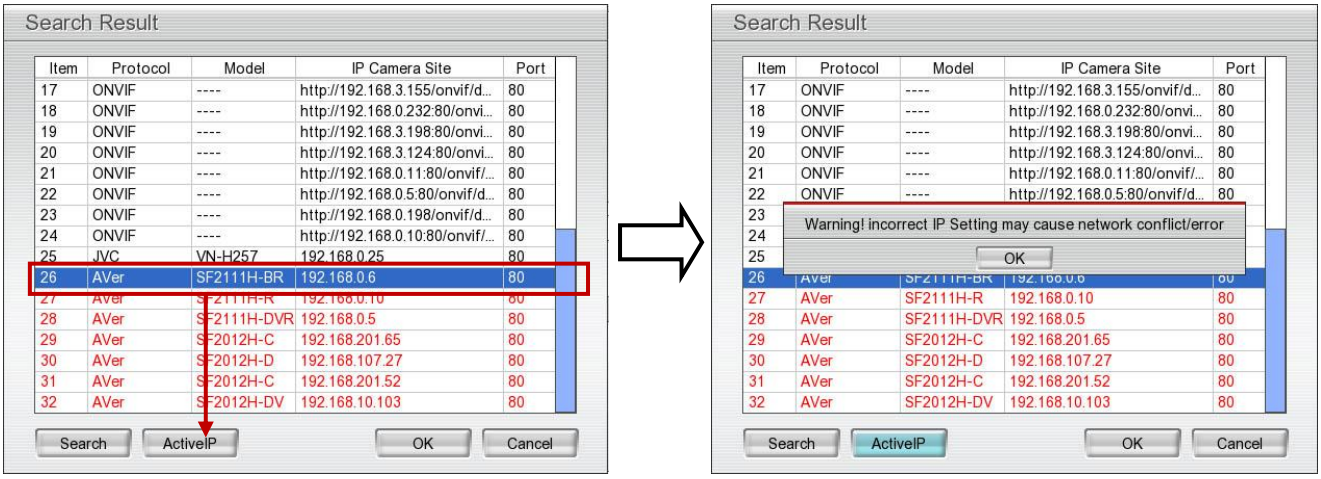
> For supported IP camera list, please refer to the IP camera support list on web site (http://surveillance.aver.com/).

4. In Search Result window, click **Search** button to start searching IP cameras.

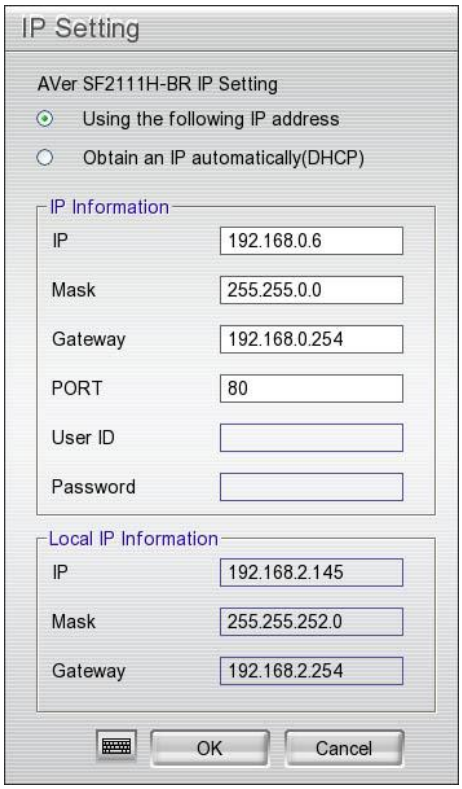



5. After search completing, user can click the IP camera that wants to connect and click **OK**; the screen will back to IP Camera Settings window.
6. For connecting AVer IP cameras series, the IP cameras list in **red text** and these means the IP camera is can be configured from DVR site. User can select the IP camera and click **Active IP** button to configure the IP camera's setting; even the IP camera is not in the same IP segment. After selecting the IP camera,

a warming message dialog is popup and click **OK** to continue it.




In IP setting window, user can configure IP camera's IP, Mask, Gateway, and Web port. Also, user can change camera's IP mode – DHCP or Static IP. In Local IP Information section, it displays current DVR system's IP, Mask, and Gateway. After configuring, click **OK** and the new setting will apply to the IP camera. In Search Result window, click **OK** to back to IP Camera Settings window.

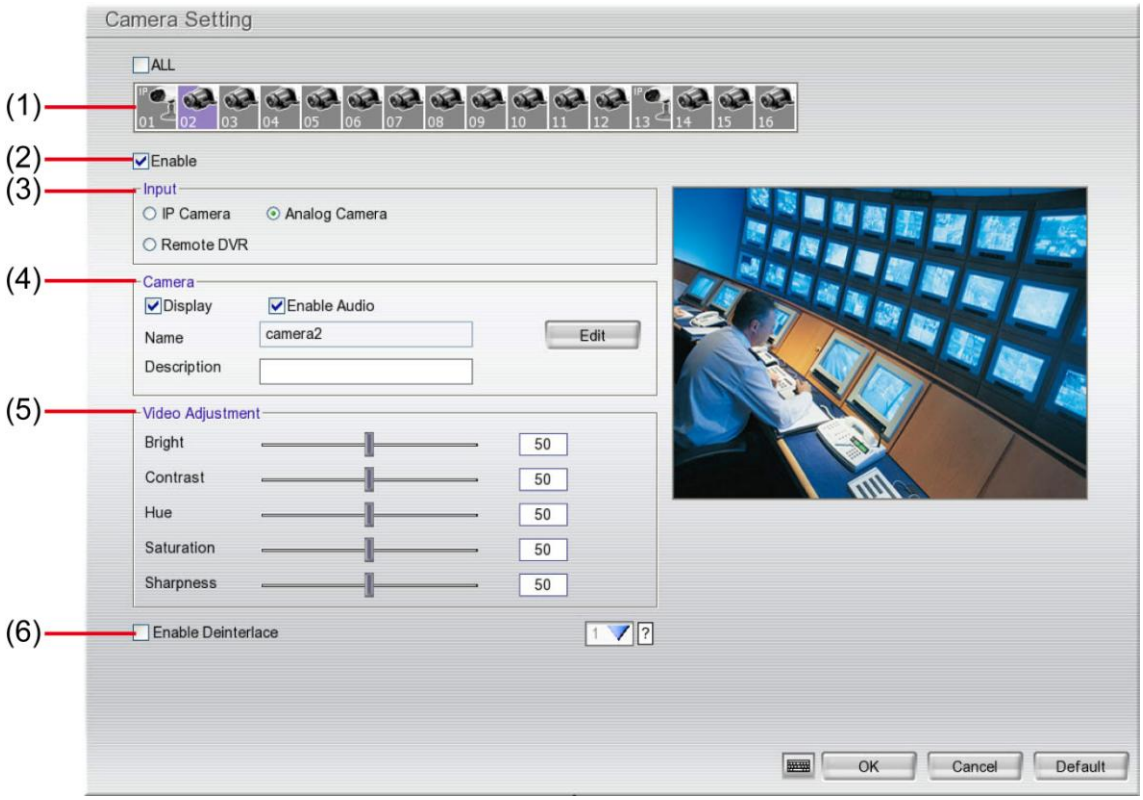



7. If the IP camera has authority request, please enable **Authentication** and enter **ID** and **Password**.
8. Click **OK** to connect with the IP camera.

## 3.2.3 To Setup Analog Camera

Click **Default** will back to the factory default value.

EH6108H+ only supports 8 channels.




**(1) Camera Icons**

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

**(2) Enable**

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

**(3) Input**

Select the camera type as **Analog Camera**.

**(4) Camera**

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio**
  Enable/disable audio of the camera.
- **Name**
  Click **Edit** to change the camera name.

DVR supports Traditional Chinese characters on remote site (remote setup).

- **Description**
  Add a short comment

**(5) Video Adjustment**

Adjust the Brightness, Contrast, Hue, Sharpness, and Saturation of the camera.

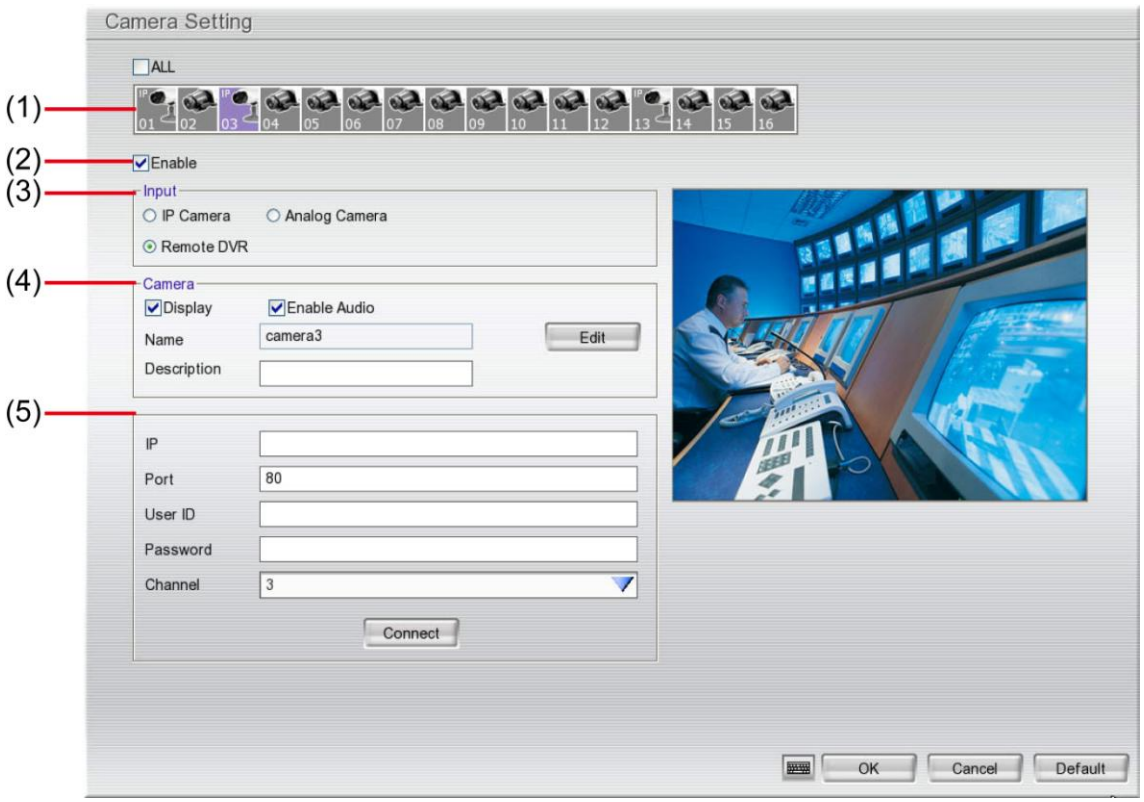
**(6) Enable Deinterlace**

Enhance the video quality. Set the **Enable Deinterlace** mode to #1, if you are capturing motionless picture and select #2, if it captures lots of movement.

## 3.2.4 To Setup Camera from the Remote DVR(Fixed Mode)

User can add the camera from another DVR through the network.

EH6108H+ only supports 8 channels.




**(1) Camera Icons**

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

**(2) Enable**

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

**(3) Input**

Select the camera type as **Remote DVR**.

**(4) Camera**

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio**
  Enable/disable audio of the camera.
- **Name**
  Click **Edit** to change the camera name.

DVR supports Traditional Chinese characters on remote site (remote setup).

-

- **Description**
  Add a short comment

**(5) IP Camera Information**

- **IP**
  Enter the IP address of the camera
- **Port**
  The port for connection
- **User ID**
  Enter the user id that for connecting authority
- **Password**
  Enter the password that is for connecting authority
- **Channel**
  Select the channel of connected camera
- **Connect**
  Click to connect the camera when all configurations are set.

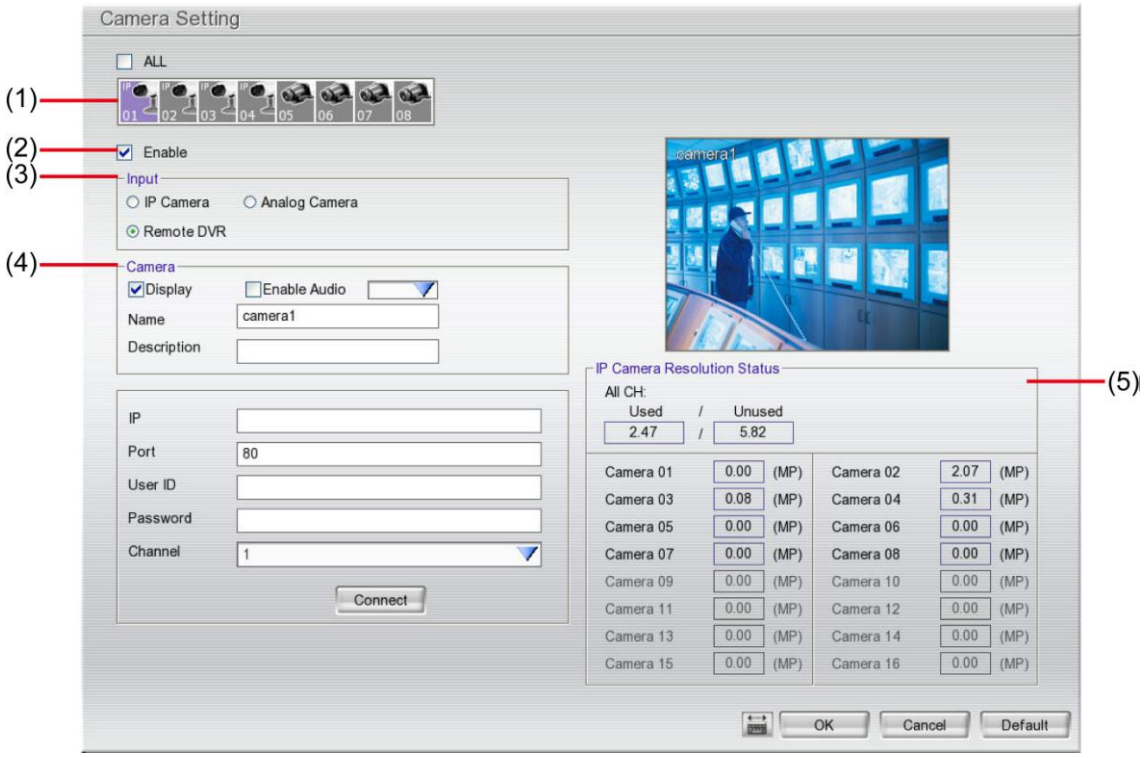
## 3.2.5 To Setup Camera from the Remote DVR(Flexible Mode)

When user select IP camera resolution mode as **Flexible mode** in System Setting, the Camera Setting UI is displayed the IP camera channel's resolution value that has been calculated and transform by DVR system.

In Flexible Mode, DVR system supports 16MP total for 16 IP camera channels (In any code type – H.264, MEPG4, MEPG). The 16MB is divided into 8MP each for odd and event channels. A channel maximum supported value is 5MP.

Click **Default** will back to the factory default value.

EH6108H+ only supports 8 channels.




**(1) Camera Icons**

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

**(2) Enable**

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

**(3) Input**

Select the camera type as **Remote DVR**.

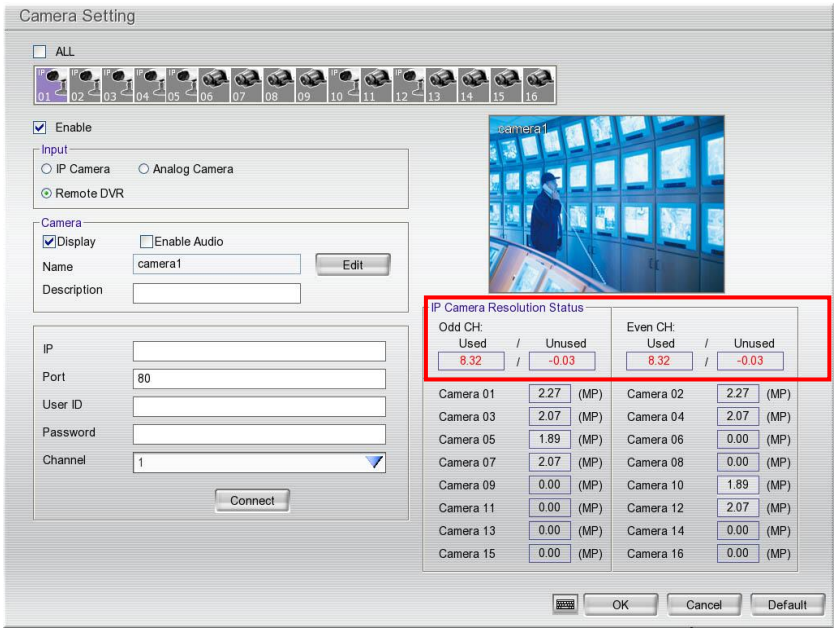
**(4) Camera**

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio**
  When camera type is **Remote DVR**, the audio is not supported.
- **Name**
  Change the camera name
- **Description**
  Add a short comment
- **IP**
  Enter the IP address of the camera
- **Port**
  The port for connection
- **User ID**
  Enter the user id that for connecting authority
- **Password**
  Enter the password that is for connecting authority
- **Channel**
  Select the channel of connected camera
- **Connect**
  Click to connect the camera when all configurations are set.

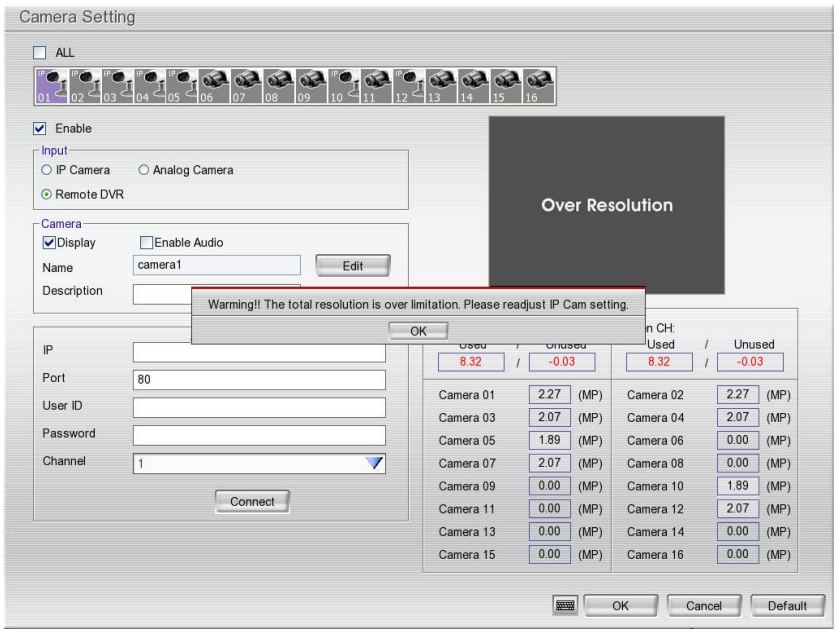
**(5) IP Camera Resolution Status**

The total resolution values are including both IP camera channel and Remote DVR channel.

It displays the each IP camera channel's current resolution value that is calculated and transformed by DVR system. The 16 MP is divided into 8MP each for odd and events channels. When the total resolution value is over 8MP, the **Used** and **Unused** value text is displayed in red color.



If user ignores or doesn't notice the resolution is over 8MP and click **OK** button to save the setting, then, a warning message dialog is shown up. Only resolution values are less or equal to 8MP, the DVR system allows user to save the setting.



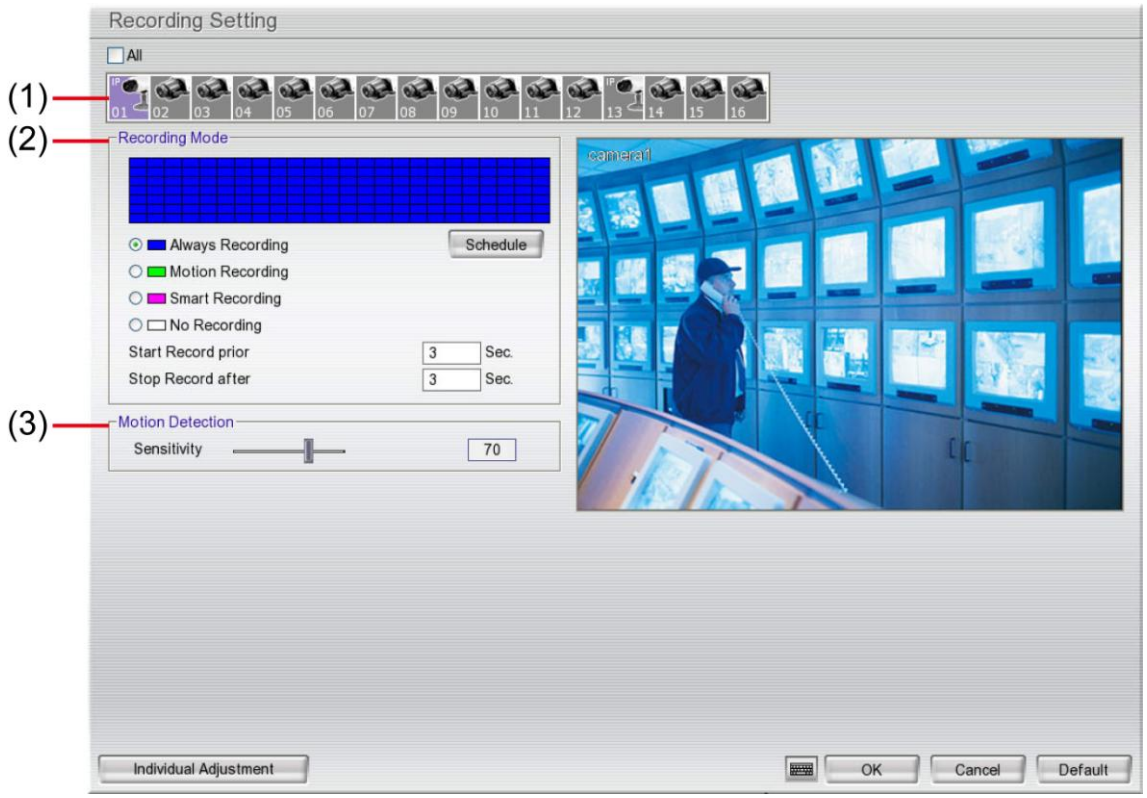

When one of connected IP camera's resolution has been changed on IP camera site and is caused resolution over 8MP, the channel screen is displayed text word "**Over Resolution**".

## 3.3 Recording Setup

### 3.3.1 Setup IP Camera Record Setting

Click **Default** will back to the factory default value.

EH6108H+ only supports 8 channels.




**(1) Camera Icons**

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns purple when it is selected.

**(2) Recording Mode**

The horizontal blocks from 00 to 23 represent the time in 24-hour clock and the vertical block 1 to 7 represent the day in the week block (Sunday to Saturday). To record in full 24 hours and 7 days a week, select the recording mode and click the ⊙ button. If you want to only record at a particular time or day, click **Schedule** button and select the **Recording Mode** , and then click on the time or day blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen. The recording modes are listed below:

- **Always Recording**
  Record the video from the selected camera and save it to the designated storage device

- **Motion Recording**
  Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.
- **Smart Recording**
  Automatically switch to recorded at the maximum frame as DVR system can once a motion is detected and

if there is no motion, it records at key frame.

- **No Recording**

  The system won't do any recording.

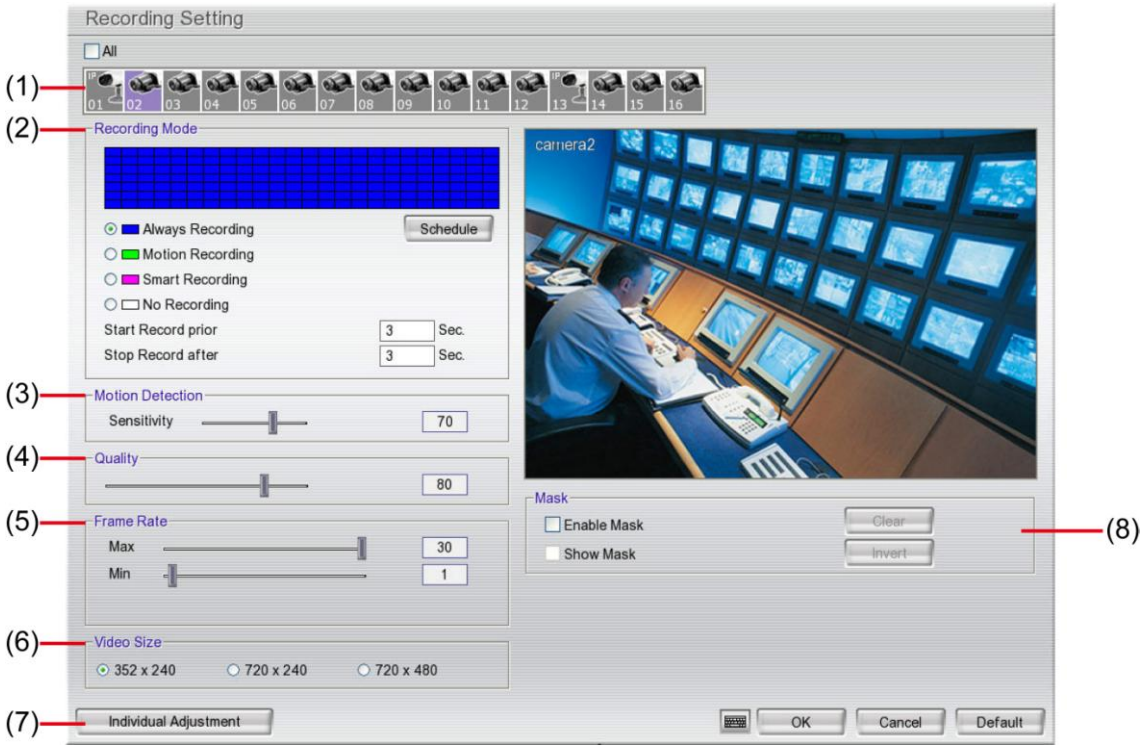
**(3) Motion Detection**

Adjust the sensitivity of the motion detection. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen.

## 3.3.2 Setup Analog Camera Record Setting

Click **Default** will back to the factory default value.

EH6108H+ only supports 8 channels.




**(1) Camera Icons**

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns purple when it is selected.

**(2) Recording Mode**

The horizontal blocks from 00 to 23 represent the time in 24-hour clock and the vertical block 1 to 7 represent the day in the week block (Sunday to Saturday). To record in full 24 hours and 7 days a week, select the recording mode and click the ⊙ button. If you want to only record at a particular time or day, click **Schedule** button and select the **Recording Mode** , and then click on the time or day blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen. The recording modes are listed below:

- **Always Recording**

  Record the video from the selected camera and save it to the designated storage device

- **Motion Recording**

  Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start**

**Record Prior** and **Stop Record After** settings.

- **Smart Recording**
  Automatically switch to record at the maximum frame rate setting once a motion is detected and recording time will be based on **Stop Record After** setting; if there is no motion, it records at the minimum frame rate setting. Set the frame rate in **(5) Frame Rate**.
- **No Recording**
  The system won't do any recording.

**(3) Motion Detection**

Adjust the sensitivity of the motion detection. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen.

**(4) Quality**

Adjust the video quality. The higher the value, the lower the compression level and uses more hard disk space.

**(5) Frame Rate**

Set the maximum and minimum number of frames to be recorded during motion and motionless state. The frame rate ranges from 01 to 30 for NTSC and 01 to 25 for PAL. The higher the frame rate, it uses more hard disk space.

Always recording frame rate is depending on value of max frame rate.

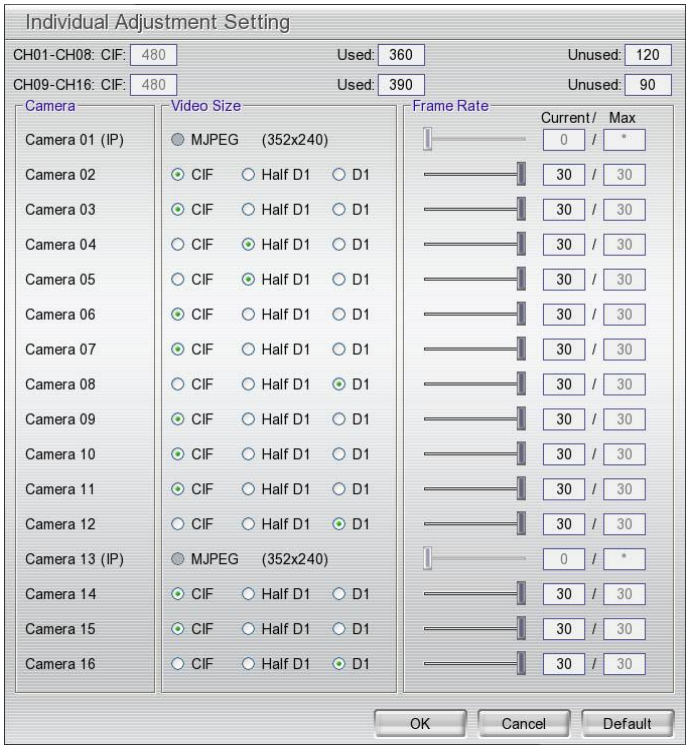
**(6) Video Size**

Select the size of the video and click the ⊙ button. The higher the size, the larger the file it creates.

**(7) Individual Adjustment**

Each camera can adjust video size and frame rate individually. Click **Default** will back to the factory default value. The frame rate usage is shown in **Used** and **Unused** columns by CIF mode.

Adjusting video size and frame rate by channel, only available on the analog camera.



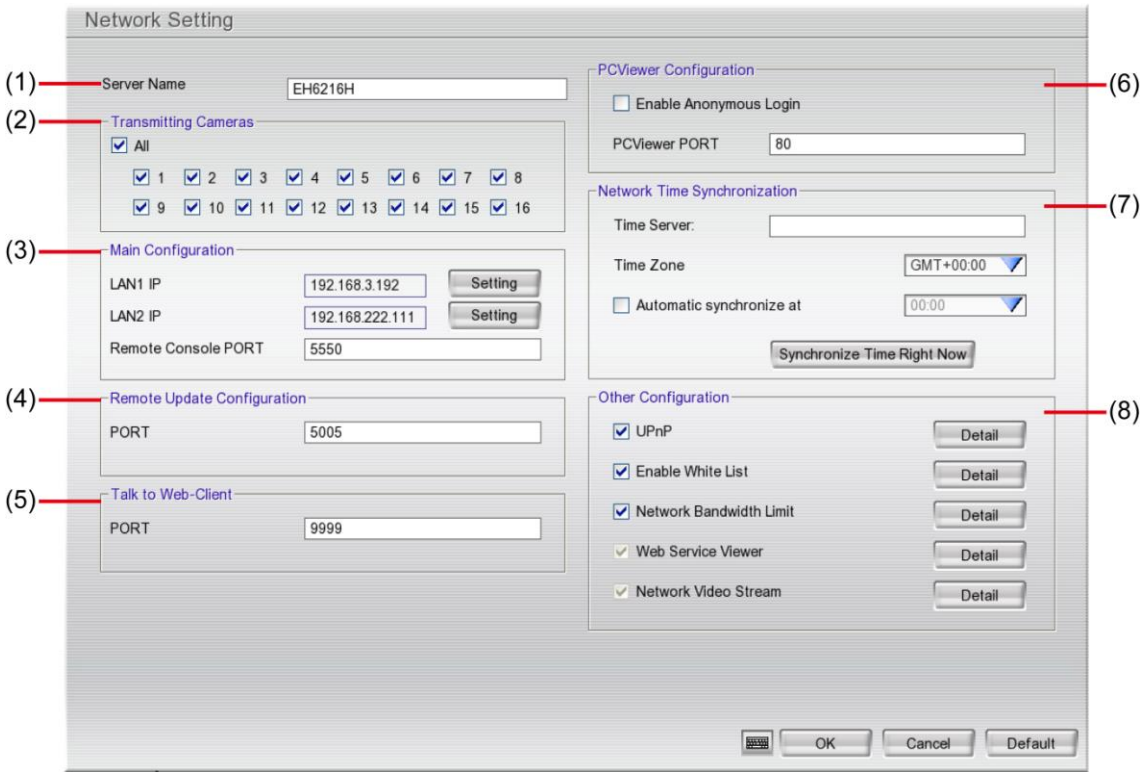
**(8) Mask**

Mask and POS function cannot be enabled at the same time.

Mark an area on the screen to disregards the motion in the marked area and to only monitor outside the marked area. Enable the **Enable Mask** and click-and-drag an area on screen that user wants to mask. To clear all mask area, click **Clear** button. To inverse the mask area, click **Invert** button. The original selected area will exchanged with un-selected area. To show the mask area on preview screen, enable **Show Mask**. The mask is able to see on the screen only when preview screen is in single screen mode.

# 3.4 Network Setup

Click **Default** will back to the factory default value.




**(1) Server Name**

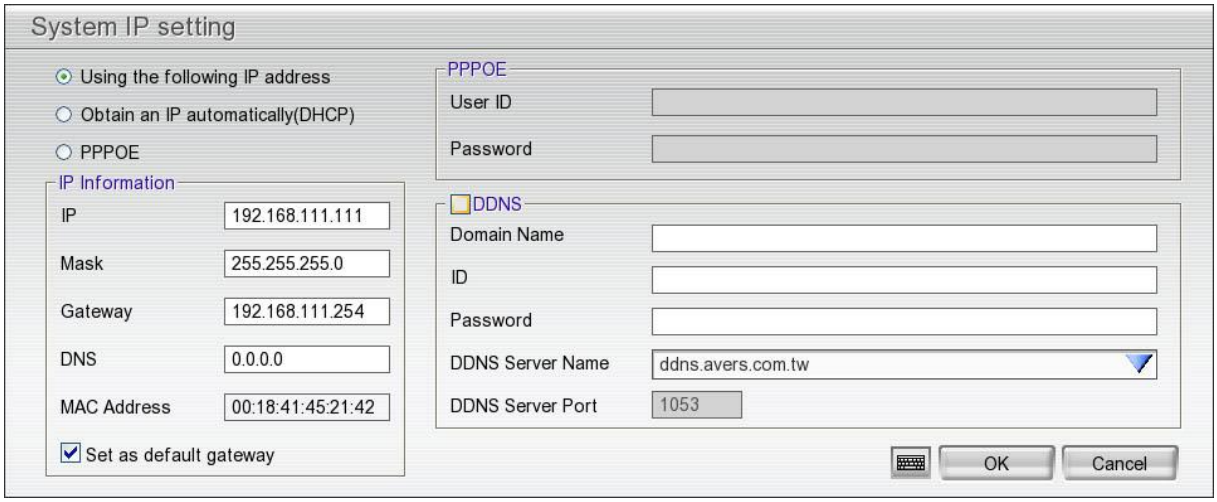
Assign a name for the DVR unit. Alphabet letters and numbers only.

**(2) Transmitting Cameras**

Select and click on the camera number in the Transmitting Camera section you want to make it accessible via internet using PCViewer, Remote Console, PDA Viewer and JavaViewer (still image). To select all the cameras, enable the **ALL** check box.

**(3) Main Configuration**

Set the DVR IP address and **Remote Console Port**. You need this when accessing DVR server from the remote location via internet. The DVR system supports dual LAN, user can setup 2 IP address and only the one has marked **Set as default gateway** can configure **DDNS** function. Click **Setting** to setup IP setting.




- **Using the following IP address:** Assigns an IP address for the DVR system. Fill in the IP related parameters in **IP information** section.
  - **IP:** Assign a constant IP address which a real IP address gives from ISP to DVR system.

- **Mask:** It is a bitmask used to identify the sub network and how many bits provide room for host addresses. Enter the subnet mask of the IP address which user has assigned to DVR system.
- **Gateway:** A network device acts as a passageway to internet. Enter the network gateway IP address
- **DNS:** Domain Name Server translates domain names (such as www.abb.com.tw) to IP addresses. Enter the IP address of DNS if it is available.
- **MAC Address:** An identifier hardware address of DVR unit that is assigned by the manufacturer for identification. User don't need to fill in, it will generated by system automatically.

■ **Obtain an IP automatically (DHCP):** Assign the IP address by local DHCP server to DVR system.

■ **PPPOE:** Point-to-Point Protocol over Ethernet is a network protocol for encapsulating PPP frames in Ethernet frames. It is used mainly with ADSL services. If your network is using ADSL service connecting to internet, and then, select PPPOE mode. Enter **User ID** and **Password** that is given by your ISP for PPPOE connecting authority.

■ **DDNS:** DDNS(Dynamic Domain Name Service) is a data query service mainly used on the Internet for translating domain names into Internet addresses. Users can register their own domain name on **http://ddns.avers.com.tw** or **http://dyndns.org**(See Appendix A).

- **Domain Name**
  Enter the domain name that user has registered.
- **Password**
  A password use to access DDNS that user has setup when register the domain name
- **DDNS Server Name**
  Select the DDNS server that user applied their domain name.
- **DDNS Server Port**
  Fill in the port that connects to DDNS server. Default is 1053.

**(4) Remote Upgrade Configuration**

A port is using for the remote firmware upgrade through network.

**(5) PCViewer Configuration**

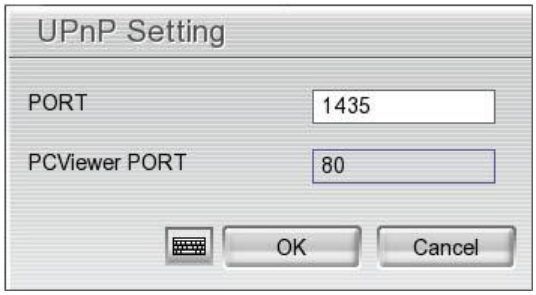
Activate **Enable Anonymous Login** to remotely access the DVR server without the need of password. Fill in the **PCViewer PORT** for remote accessing connection.

**(6) Network Time Synchronization**

Adjust the DVR system time same as network time server. Fill in the **Time Server** IP address or domain name and select the **Time Zone**. User can enable **Automatic Synchronize at** to set automatic synchronize time on a daily basis. Or, user can click **Synchronize Time Right Now** to adjust time right away.

**(7) Other Configuration**

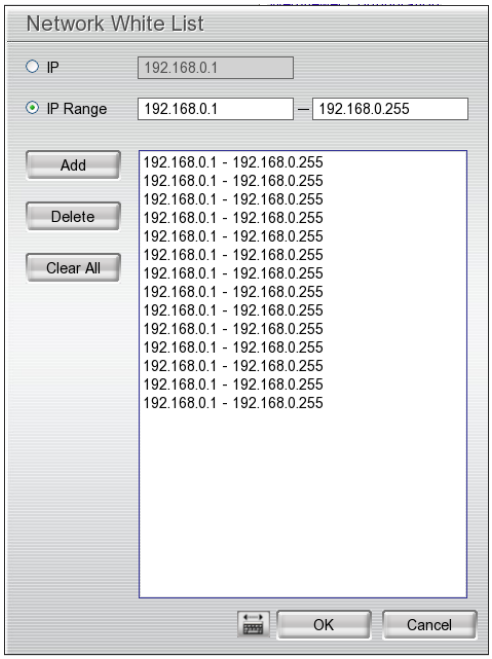
- **Network Video Stream**
  It displays the remote video stream value that is depended on the video quality user has selected on remote site.
- **UPnP**
  This function is working when the router had enabled the UPNP function and had opened the port, which had assigned for UPNP setting, for the DVR system.



- **Enable White List**

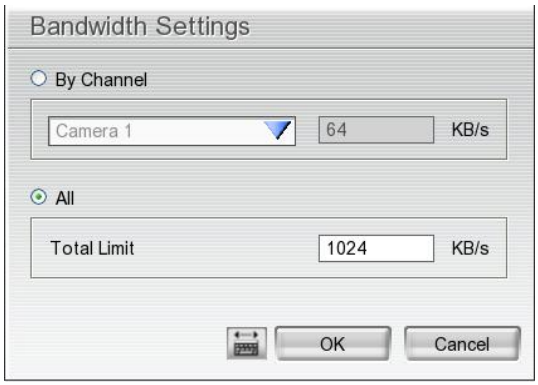
Without any IP address/IP range is assigned in White List table, none of IP address/IP range is allowed to access DVR when White List function is enabled.

An access permit list for the remote accessing of DVR server. Enter the IP address and click **Add**. Or, enter a range of IP address and click **Add**. To delete the IP from the list, select the IP and click **Delete** button. To reset the input, click **Clear** button.



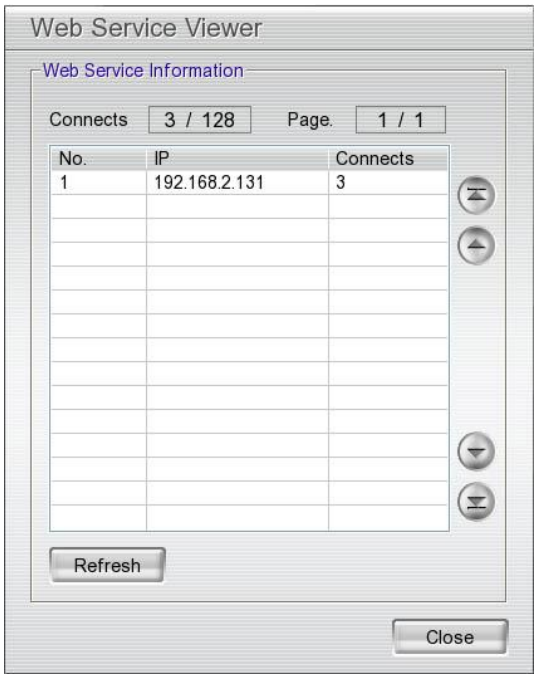

- **Network Bandwidth Limit**

**By Channel:** Set the network bandwidth by each channel.
**All:** Set the total network bandwidth consumption limit.



- **Web Service Viewer**

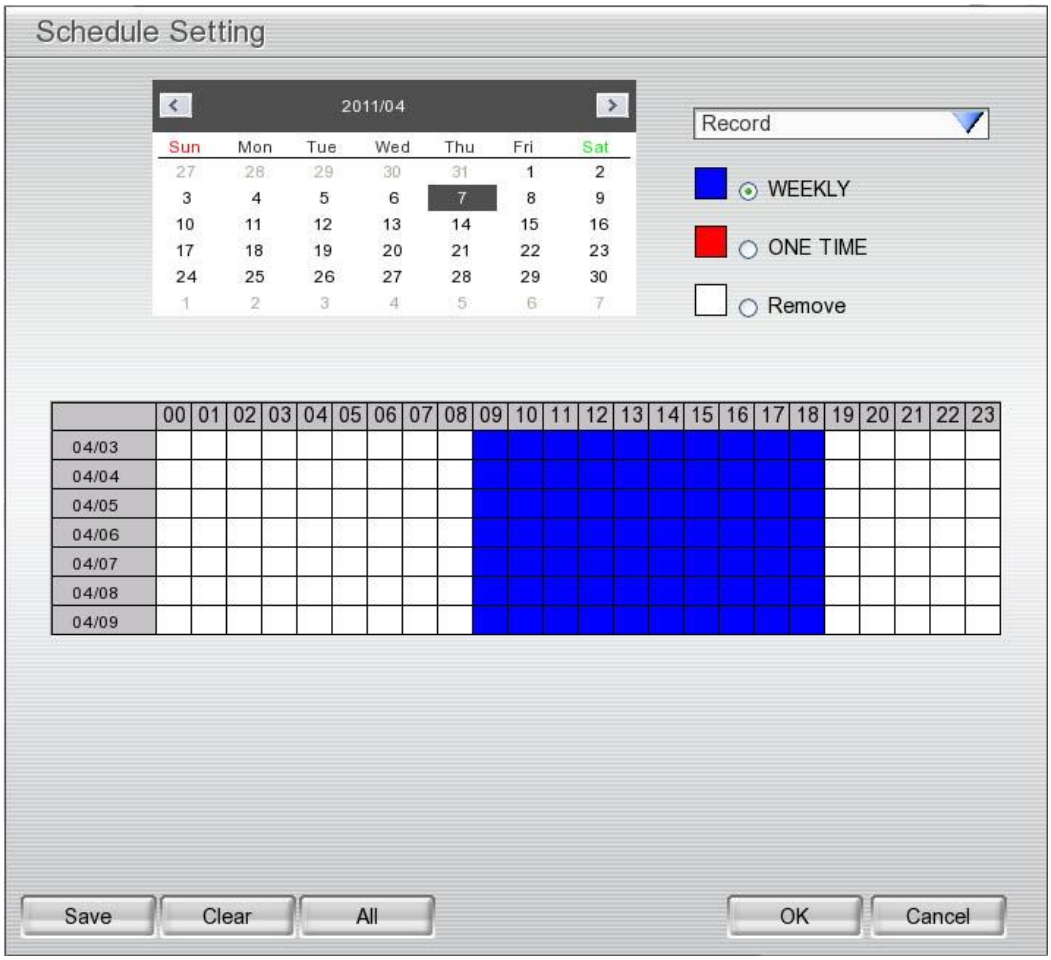
  It displays the current remote connection (such as PCViewer, Remote Console, CM3000) information. Same IP address is counted as one time and different application connection is displayed in **Connects** column (ex. IP 192.168.2.131 connects to DVR system through PCViewer, Remote Console, and CM3000, then the IP 192.168.2.131 is counted in one data and has three connection counts).



## 3.5 Schedule Setting

Schedule to record, enable network, reboot and disable alarm of all the cameras either weekly or one time. The number from 00 to 23 represent the time in 24-hour clock. The left most column display the days in a week.

EH6108H+ only supports 8 channels.




**To Set the Schedule Setting:**

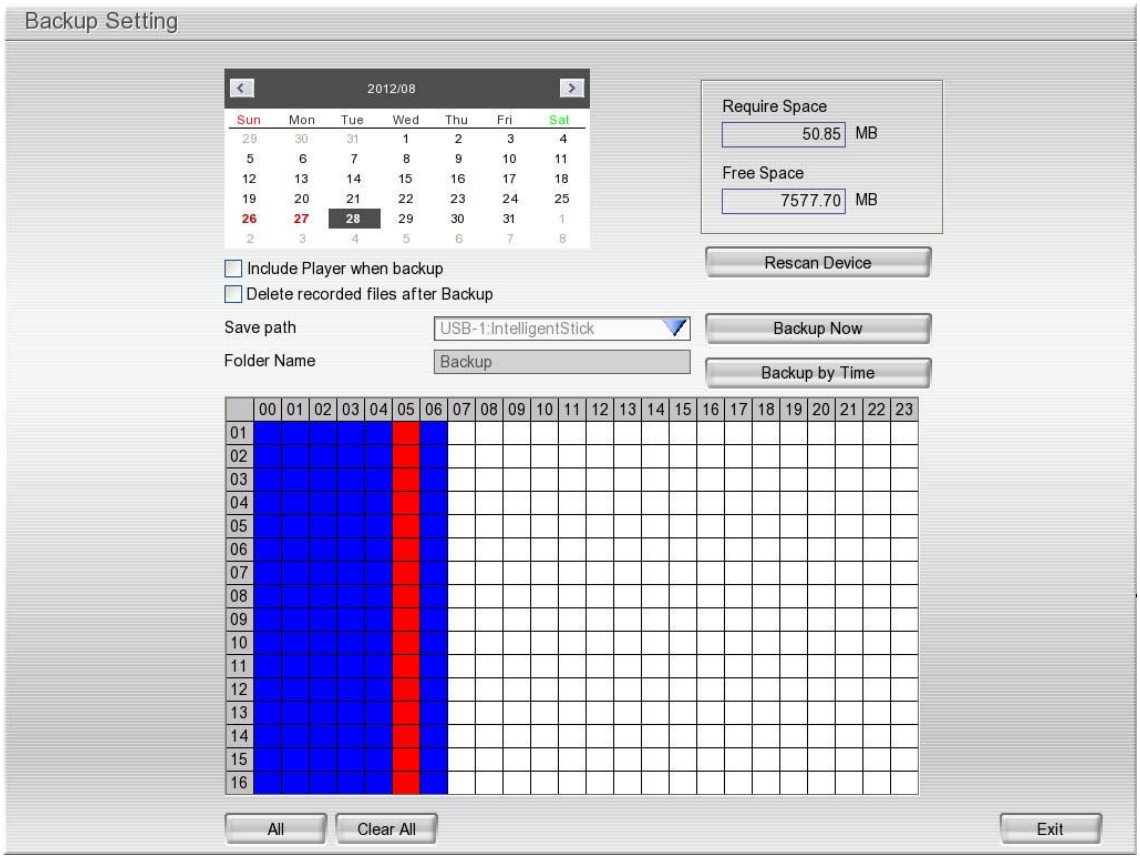
1. Select the date in the calendar. Use ◂ and ▸ buttons to shift the calendar to the left or right.
2. Select the condition you want to schedule in the drop down list.
   - **Record**
     Activate all the cameras to start video recording at the set time based on the Recording setting
   - **Enable Network**
     Activate DVR remote system to access at the set time. After the appointed time, the Network function will be disabled. If the Network function is already enabled, the Network function will not be disabled when the appointed time has ended.
   - **Reboot**
     Restart the PC at the appointed time.
   - **Disable Alarm**
     Deactivate the alarm at the set time temporarily.
3. Set the schedule as weekly or one time. Click ⊙ to make a selection.
4. Click on the blocks to set the schedule or click **All** to select all. To un-select the specific schedule blocks, click the **Remove** and click blocks to un-select. To store the setting, click **Save**. To remove the settings, click **Clear**.

5. To end Schedule Setting, click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

## 3.6 Backup Setup

- While backup, the CPU usage is near to 100% and might slow down the DVR system.
- EH6108H+ only supports 8 channels.

In the Backup Setting dialog box, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera number. When you back up the file, you may find Qplayer application included in the backup folder. User need to execute the Qplayer installation on PC for playback (see also Chapter 3.6.1).




■ **Backup the file**

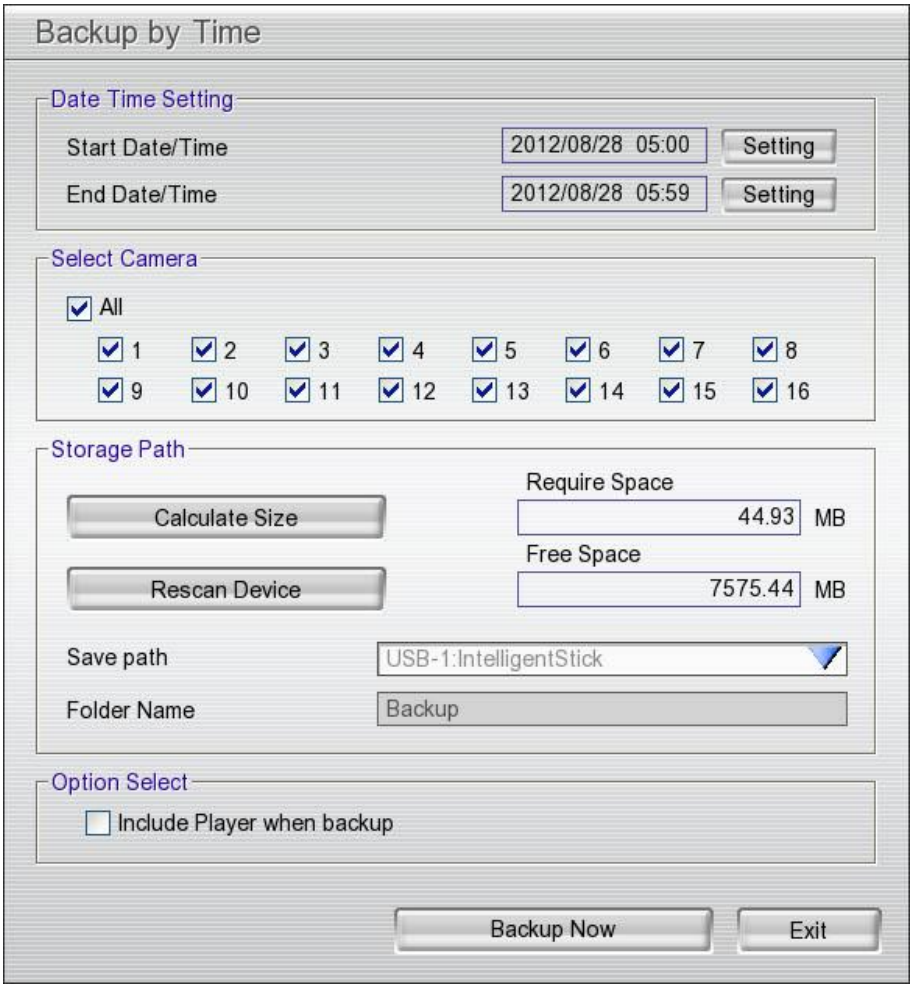
1. Select the date of the recorded file in the calendar you want to backup. Use ◄ and ► buttons to shift the calendar to the left or right.
2. In the table below, click on the blue block to select the recorded file or click camera (01~16) or time (00~23) to select the whole row or column. The blue block turns red when it is selected. The block that appears in white doesn't have data.
3. Check the space need for backup beside the calendar. Click **Rescan Device** to calculate the space for backup.
   - **Require Space**: Show the total size of the backup file.
   - **Free Space**: Show the available storage space
4. If user wants to include the Qplayer program in backup folder, mark the **Inculde Player when backup** check box. The Qplayer program will be in backup folder for playback using.
5. If you do **NOT** want to keep the recorded file in the storage folder, enable **Delete files after Backup** check box.
6. Select the backup device – USB disk or DVD-ROM device.

7. DVR system will give **Folder Name** automatically.
8. Click **Backup Now** button to start archiving the selected file.

### ■ Backup by Time

User can setup specific backup time and camera.

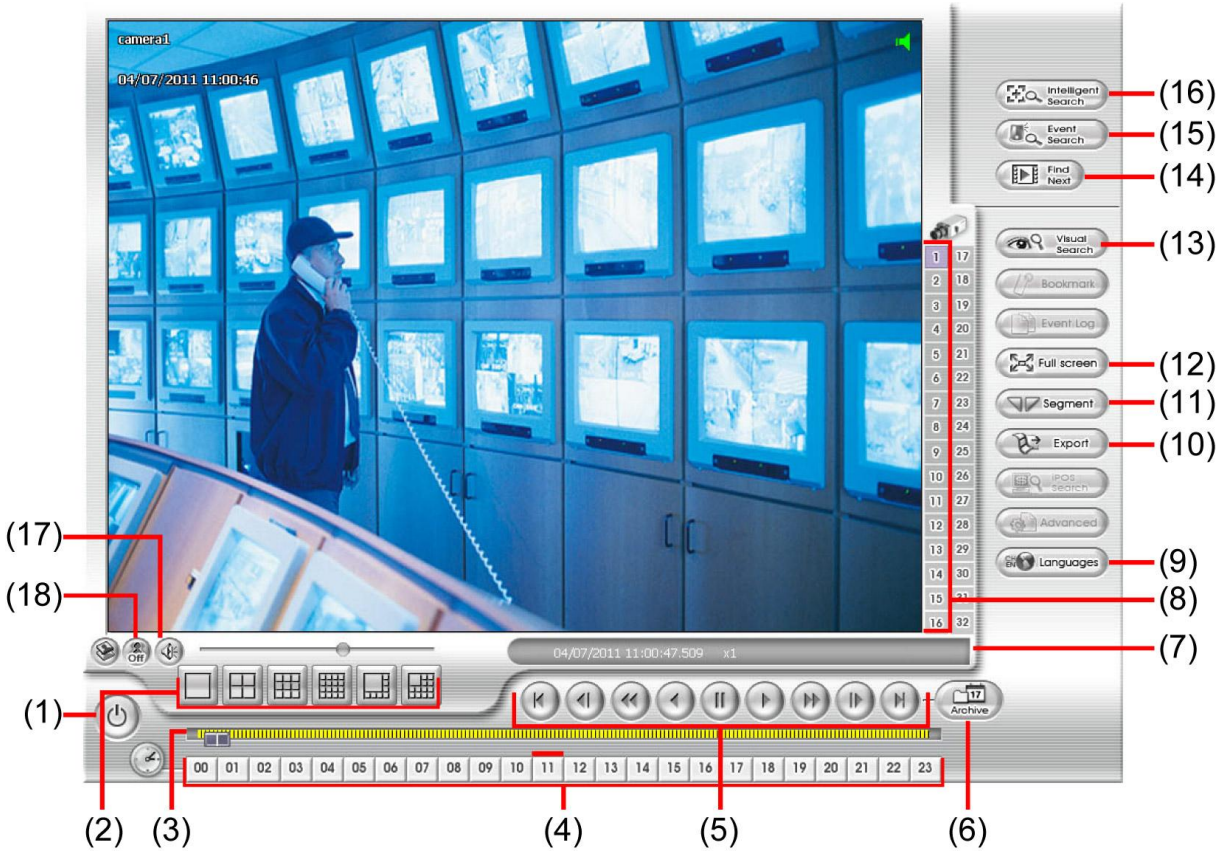
1. Click **Backup by Time** button in Backup Setting window.
2. In Date Time Setting, click **Setting** of **Start Date/Time** and **End Date/Time** to select date and time that user wants to backup.
3. In Select Camera, select the channels or select All channels to backup.
4. If user wants to know the total backup file size, click **Calculate Size** button and the total of backup file size is displayed in **Require Space** and the available storage space is displayed in **Free Space**. Click **Rescan Device** to re-calculate the space of total backup file and storage space of storage device.
5. Select the storage path.
6. If user wants to include the Qplayer program in backup folder, mark the **Inculde Player when backup** check box. The Qplayer program will be in backup folder for playback using.
7. Click **Backup Now** button to start archiving the selected file.



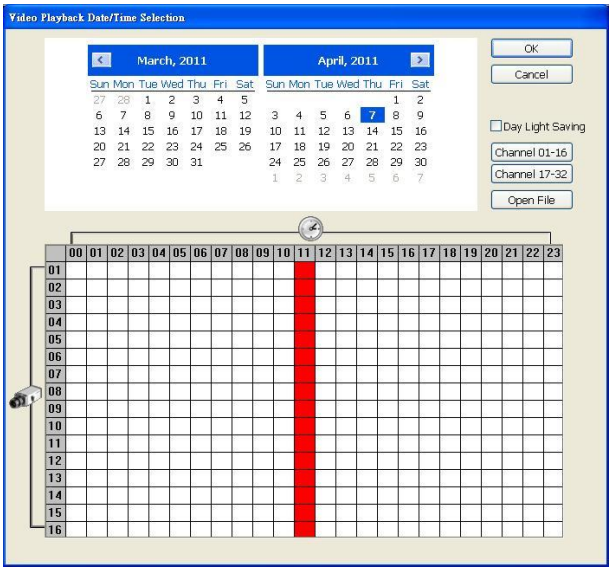
## 3.6.1 Using QPlayer to Playback Backup Video

You can playback the backup files by using QPlayer applications on the PC. When you back up the recorded file, QPlayer applications are automatically included in the backup folder if user has enabled the selection of **Inculde player when backup** when backup recorded file. With QPlayer, it is the same as in Playback mode and supports different split screen types to view all the video at the same time. The only difference is that there are no Preview and Playback buttons.

To run the application, go to backup folder and double-click **Qplayer.exe**.




| Name | Function |
|---|---|
| (1) Exit | To close the application |
| (2) Split Screen Mode | Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen. |
| To zoom in an area on the screen, **Right** click and **Drag** a square on the area you want to enlarge. | |
| (3) Progress bar | Show the progress of the file being played. You may move the bar to seek at any location of the track. |
| (4) Hour Buttons | Select and click to playback the recorded video file on the specific time frame. |
| The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file. | |

| Name | Function |
|---|---|
| (5) Playback Control Buttons | **Begin:** Move at the beginning of the recorded video file.<br>**Previous:** Go back to the previous frame.<br>**Slower:** Play the recorded video file at the speed of 1/2X, 1/4X, 1/8X, 1/16X, or 1/32X.<br>**Rewind:** Wind back the recorded video file.<br>**Pause:** Briefly stop playing the recorded video file.<br>**Play:** Play the recorded video file.<br>**Faster:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x, or 32x.<br>**Next:** Go to the next frame.<br>**End:** Go to the end of the recorded video file. |
| (6) Archive | Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file.<br>− **OPEN FILE:** user can open the recorded file from HDD<br>− **Channel 01~ 16**&**Channel 17 ~ 32:** If the channels are over 16, click button to switch to different channel group of playback calendar.<br>− **Day Light Saving:** the playback calendar only display the video records during day light saving time period.<br>  |

The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

| | |
|---|---|
| (7) Status bar | Display the recorded date, time and play speed. |
| (8) Camera ID | Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera. |
| (9) Language | Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English. |
| (10) Export | Export includes Snapshot, Print, and Output Video Clip function.<br>■ **Snapshot:** Capture and save the screen shot either in *.jpg format.<br>■ **Print:** Print the screen shot.<br>■ **Output Video Clip:** Save the segmented file in *.dvr format. |
| (11) Segment | Keep a portion of the recorded video (see also Chapter 3.6.2). |

| Name | Function |
|---|---|
| (12) Full screen | View in full screen mode. To return, press the right button of the mouse or **ESC** on the keyboard or click the arrow icon.<br>  <br><br>When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all. |
| (13) Visual Search | Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second(see also Chapter 3.6.3) |
| (14) Find Next | Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function. |
| (15) Event Search | Search from the recorded activities that were recorded in event log (i.e., Sensor, Motion, Video Loss). (See also Chapter 3.6.4) |
| (16) Intelligent Search | Search the changes in the motion detector frame (See also Chapter 3.6.5). |
| (17) Audio | Enable/disable volume |
| (18) De-interlace | To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and select #2, if it captures lots of movement. |

## 3.6.2 To Cut and Save the Portion of the Recorded Video

1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.

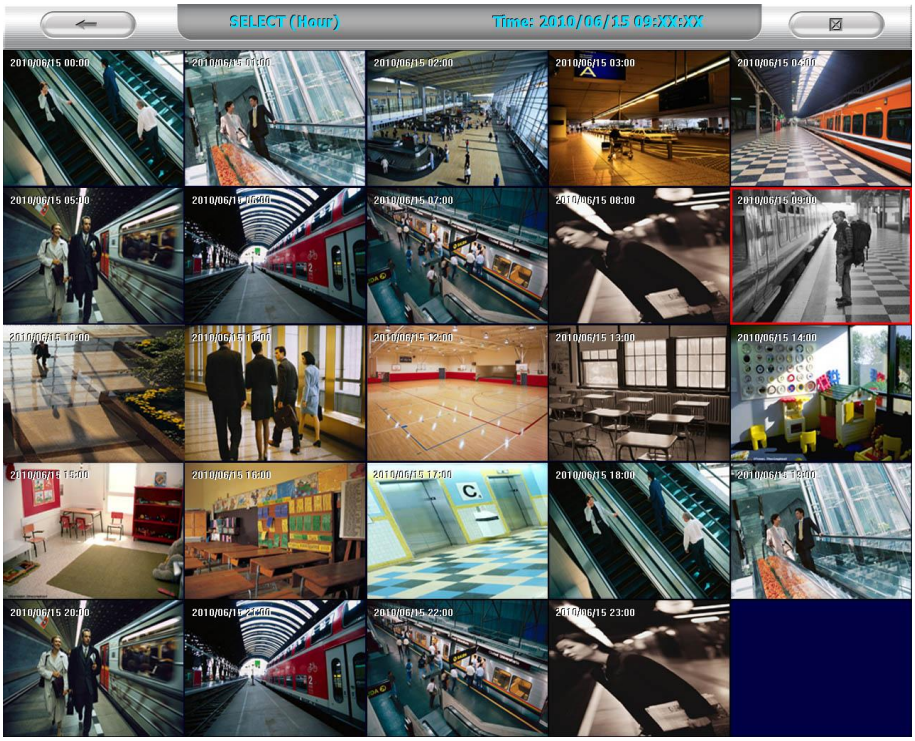

2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation, click **Segment** button again.


3. Click **Export** > **Output Video Clip** button to save the wanted portion.
4. In the **Save As** dialog box, locate on where user wants to save the file, type the filename, and select the video format.

## 3.6.3 To Search Using the Visual Search

1. Click **Visual Search**.
2. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.


3. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every 3Minutes of that hour, every 10 Seconds of that minute, every Second of that 10 seconds. To go back, click  . To view from the selected frame and close event search, click  .




## 3.6.4 To Search Using the Event Search

1. Click on the video screen on where you want to search.
2. Click **Event Search**. The Event Search text (red) would appear at the lower left corner of the screen.
3. In the Event Search Setting dialog box, check the type of condition you want to search. The video search would stop at the frame that matches the condition. To keep on searching click **Find Next**(  ) button.
4. You may also set to search and list all the result. In the **Search Duration** section, set the **Begin Time** and **End Time**. Set the **Searching Interval** time that system won't list out the same events in a period of time that user has setup. Then, click **OK** to start searching.
5. When the Event list appear, click and select the item you want to view.

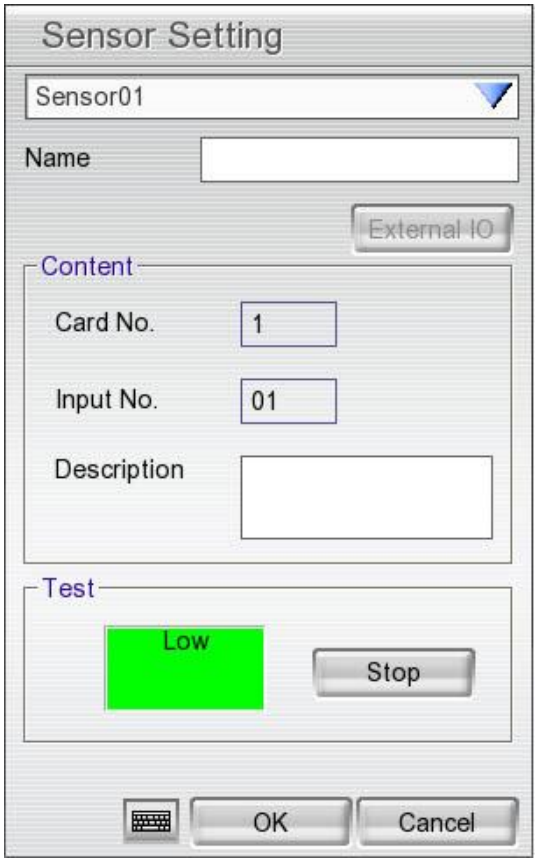
## 3.6.5 To Search Using the Intelligent Search

1. Click on the video screen on where you want to search.
2. Click **Intelligent Search**. The Intelligent Search text (red) would appear at the lower left corner of the screen.
3. When the Intelligent Search Setting dialog box and motion detector frame appear, you may adjust the sensitivity bar and the motion detector frame size and location. To set motion detector frame size and location, left click and drag on the screen. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching click Find Next. You may also set to search and list all the result. Just check the **List** box. In the **Search Duration** section set the **Begin Time** and **End Time**. Set the **Searching Interval** time that system won't list out the same events in a period of time that user has setup. Then, click **OK** to start searching.

## 3.7 Sensor Setting

The I/O device must be installed to use this function.

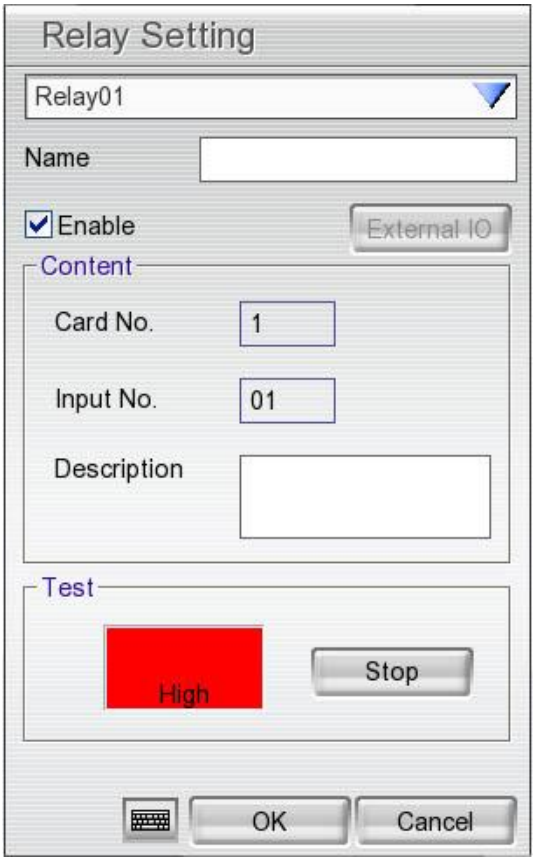
1. Click the drop-down list and select the sensor ID number.
2. Enter sensor name in **Name** column.
3. The system automatically detects the card and input number. In the **Content** section, enter **Description** of sensor.
4. In the test section, click **Test** to check the sensor status. **Red** is high and **Green** is low.
5. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



## 3.8 Relay Setting

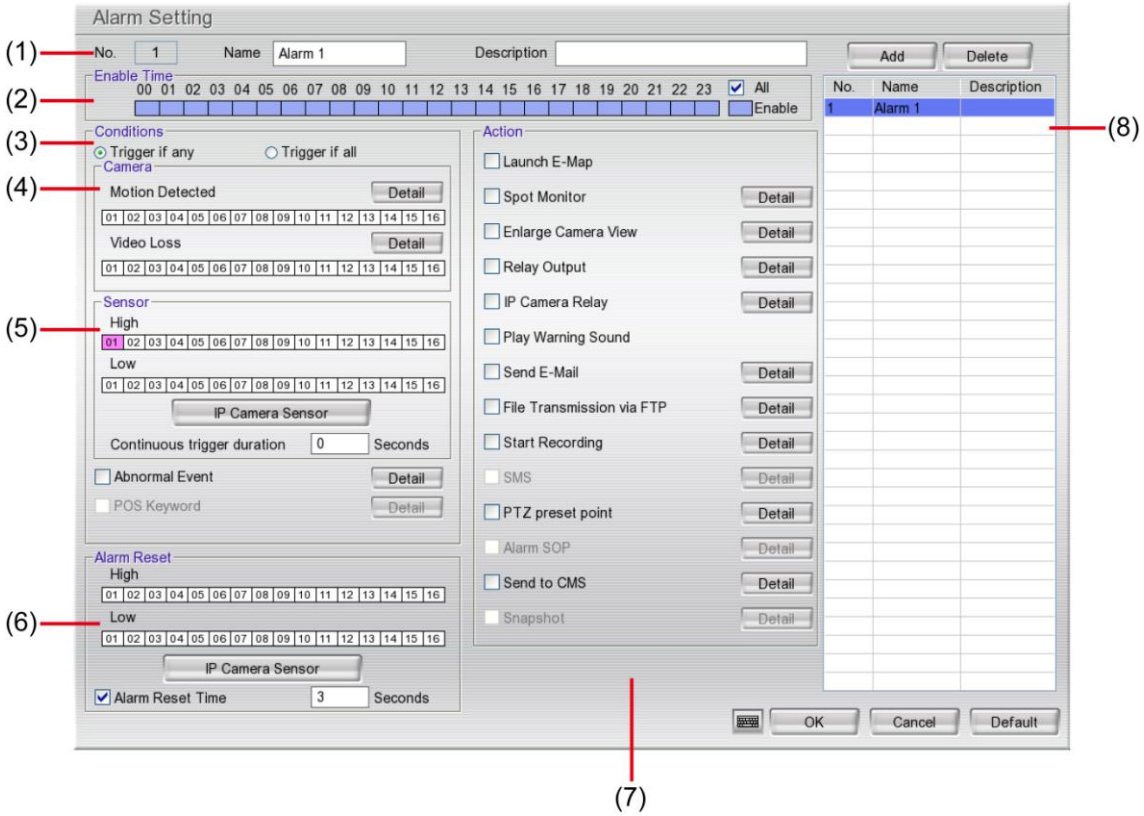
The I/O device must be installed to use this function.

1. Click the drop-down list and select the relay ID number.
2. Enter relay name in **Name** column.
3. The system automatically detects the card and input number. In the Content section, enter **Description** of relay.
4. In the test section, click **Test** to trigger relay. **Red** is high and **Green** is low.
5. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

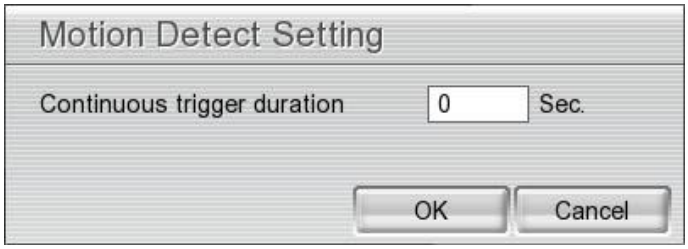


# 3.9 Alarm Setting

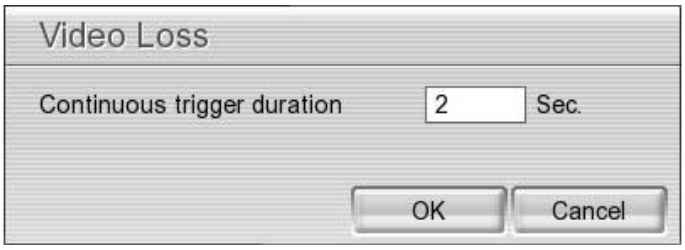
In the Alarm Setting dialog box, click **Add** to insert and set new alarm setting, click **Delete** to remove the selected alarm setting, click **OK** to exit and save the setting, **Cancel** to exit without saving. Click **Default** will back to factory default value.



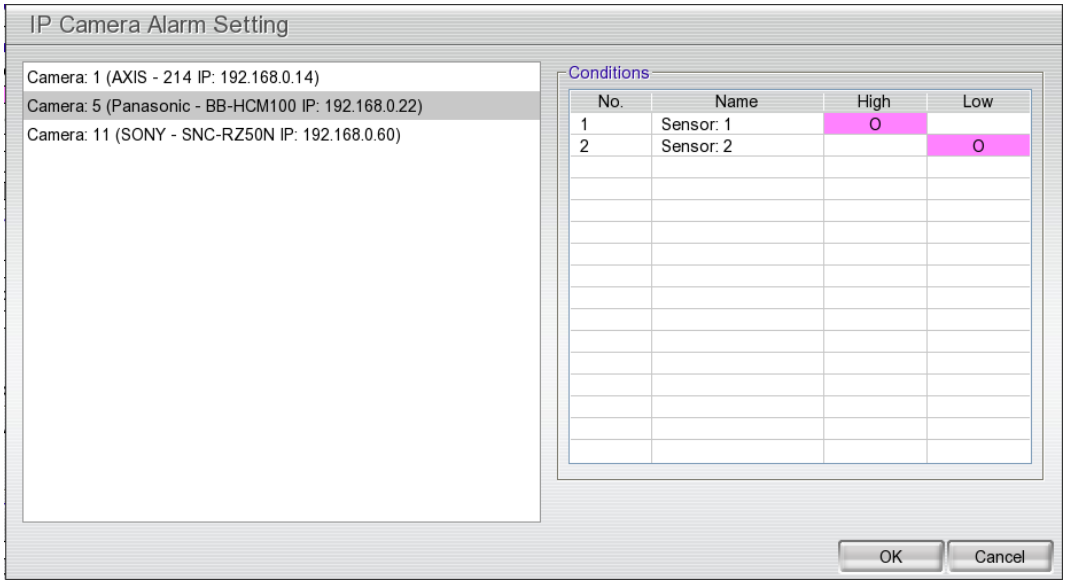

1. Click **Add** to insert and set a new alarm setting. Click the items in the **(7) Alarm Setting List** if you want to modify the alarm setting.
2. In **(1) No./Name/Description** enters alarm name and description. Alarm **No.** will be created by DVR system.
3. In **(2) Enable Time**, the number from 00 to 23 represent the time in 24-hour clock. Select the time and click the block you want to activate or deactivate the alarm function. When it is deactivated the color of the block turns white.
4. In **(3) Conditions**, you can set "**Trigger if any**" to activate if it falls to one of the conditions or "**Trigger if all**" to activate if it falls to all conditions.
5. In **Camera** section, select and click on the camera number (01 to 16) in **Motion Detected** and **Video Loss** to set the condition for the system to alarm.
   - **Motion Detected:** select and click on the camera number (01 to 16) to set the condition for the system to alarm. Click the **Detail** button to setup the system to send out the alarm when motion is detected and last the time that user has entered in **Continuous trigger duration**.



- **Video Loss:** click the camera number (01 to 16) to set the alarm condition when video is lost. Click the **Detail** button to setup the system to send out the alarm when video is lost and status last the time that user has entered in **Continuous trigger duration**.




6. In **(4) Sensor**, select and click on the sensor number to set the condition for the system to alarm. If the sensor normal status is high, set the sensor condition to low.
   - **IP Camera Sensor:** To adjust sensor high/low that is connected on the IP camera.

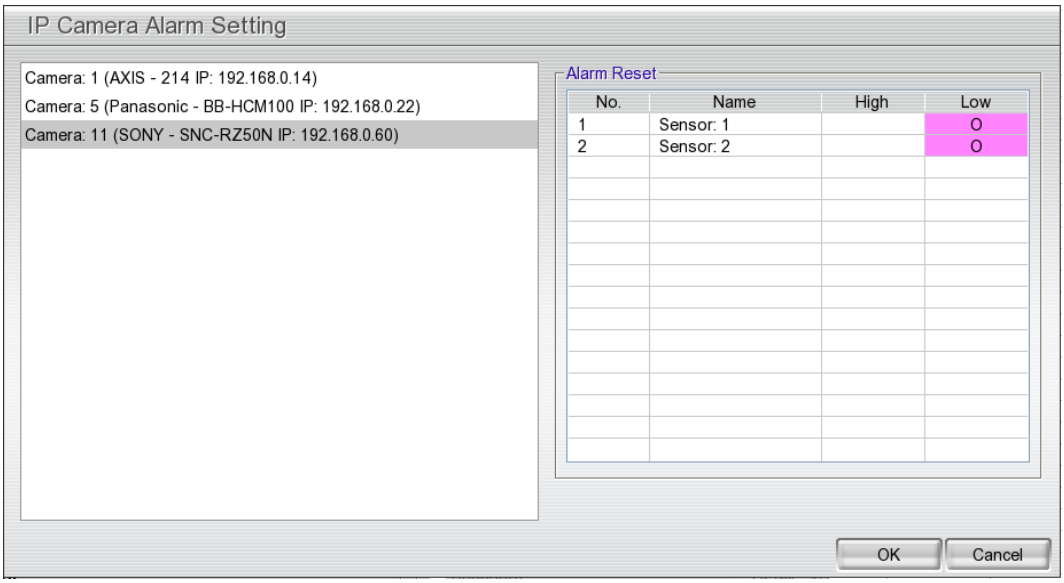



   - **Continue trigger duration:** Set a time period that when sensor has been trigger and stay in the same status for that period, then the alarm will be sent out.
   - Enable/disable the **Abnormal Event** check box, to set the condition of the event for system to alarm.


     - **Reboot:** when the DVR system reboot without abnormal condition, the system will send out the alarm message.
     - **Abnormal Reboot:** when the DVR system reboot in irregular condition, the system will send out the alarm message.
     - **Recording is switched off:** when the recording has been stopped, the system will send out the alarm message.

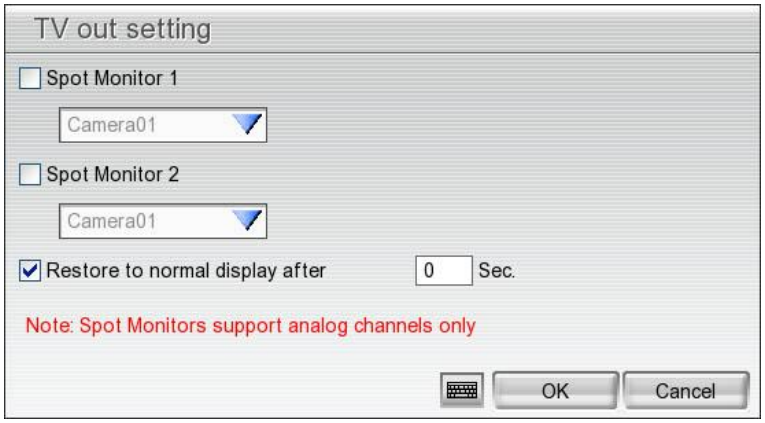
- **Network is switched off:** when the network connection of DVR system is lost, the system will send out the alarm message.
- **Hard Disk failed:** when the hard disk doesn't work normally, the system will send out the alarm message.

7. In **(5) Alarm Reset**, click the camera number to set the reset condition of alarm. Once alarm is reset, all alarm action will stop at the moment. If the sensor normal status is high, set the alarm reset condition to low.
   - **IP Camera Sensor:** To adjust sensor high/low that is connected on the IP camera.




   - **Alarm Reset Time:** Set a time for the alarm auto reset. When an alarm happen such as motion detected and video loss, the alarm will reset at the alarm reset time.

8. In **(6) Action**, you may now set the alarm action for the system to perform when the alarm condition is activated.
   - **Launch E-Map:** Display mini E-map screen.
   - **Spot Monitor**
     When the DVR system receives the alarm, the alarm video will display on spot monitor.
     Mark **Spot Monitor 1**/**Spot Monitor 2** to enable the sport monitor function. And then, select the camera (channel) when the DVR system receives the alarm from the selected camera will display the alarm video on the spot monitor.
     ✓ **Restore to normal display after:** Mark to enable and set the time that screen display returns to normal display after spot display.

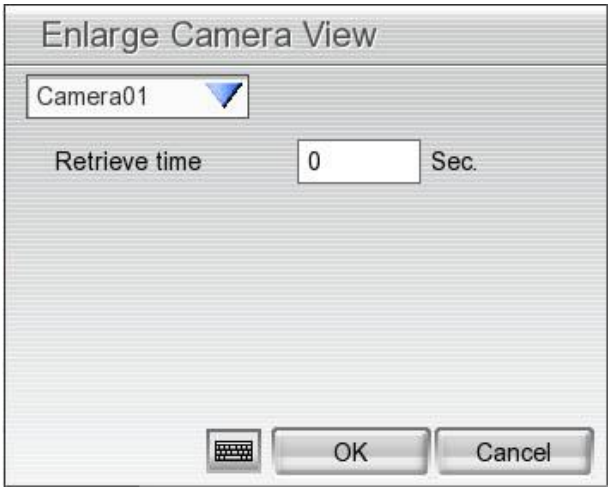


- **Enlarge Camera View**

  Switch to only display video in Preview mode from where the alarm is activated.

  a. Select the camera from drop down list to specify which camera video to be enlarged on screen when the alarm is triggered.

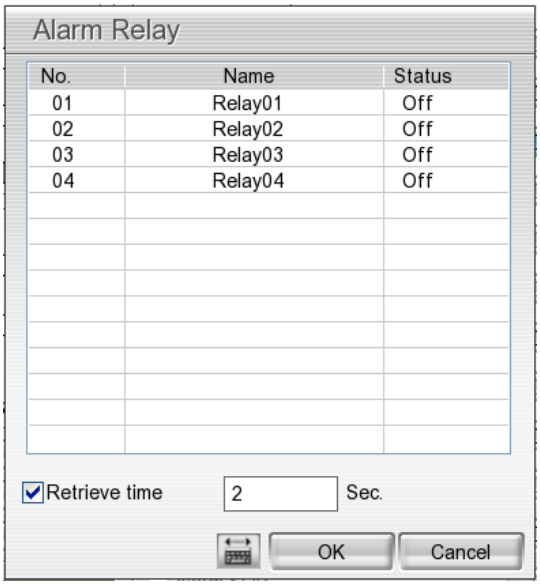
  b. **Retrieve time:** set the waiting duration before system switching back to original Preview mode. If the retrieve time is un-set, the alarm video will keep enlarging until user switch back to Preview mode manually. The retrieve time range is 0~ 600 seconds.



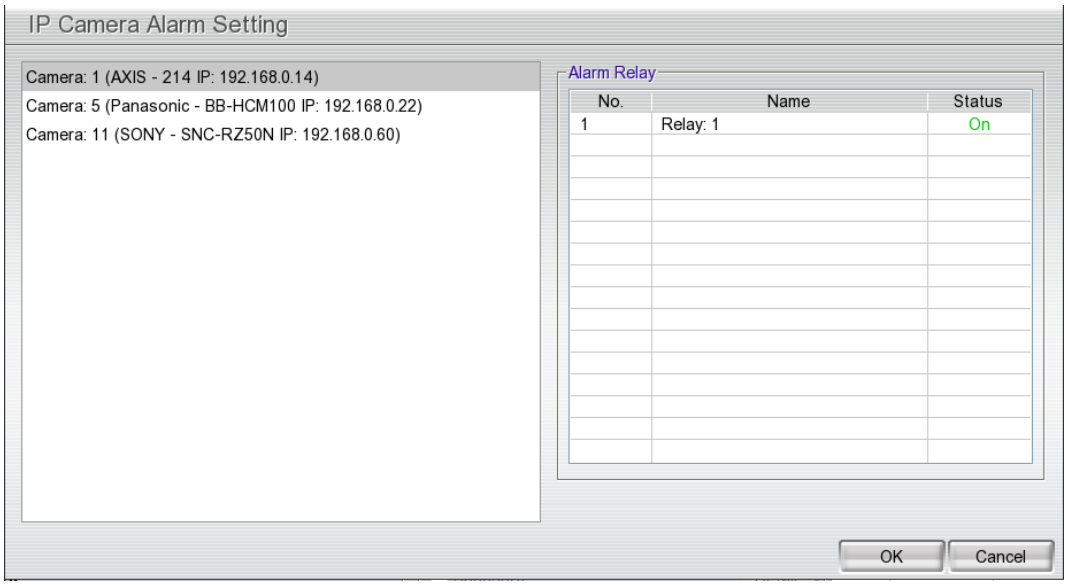

- **Relay Output**

  Set to enable/disable the relay operation when the alarm is activated and to extend additional time in second before it stops the relay operation.

  1. Beside the Relay Output check box, click **Detail**.
  2. In the Alarm Relay dialog box, select from the available relay list and in the **Status** column, set to on/off the relay operation when the alarm is activated.
  3. In the Retrieve time check box, you may enable/disable to extend the relay operation time and set the duration in second(0 ~ 3600 seconds).
  4. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.




- **IP Camera Relay:** Set to enable/disable the relay operation when the alarm is activated.



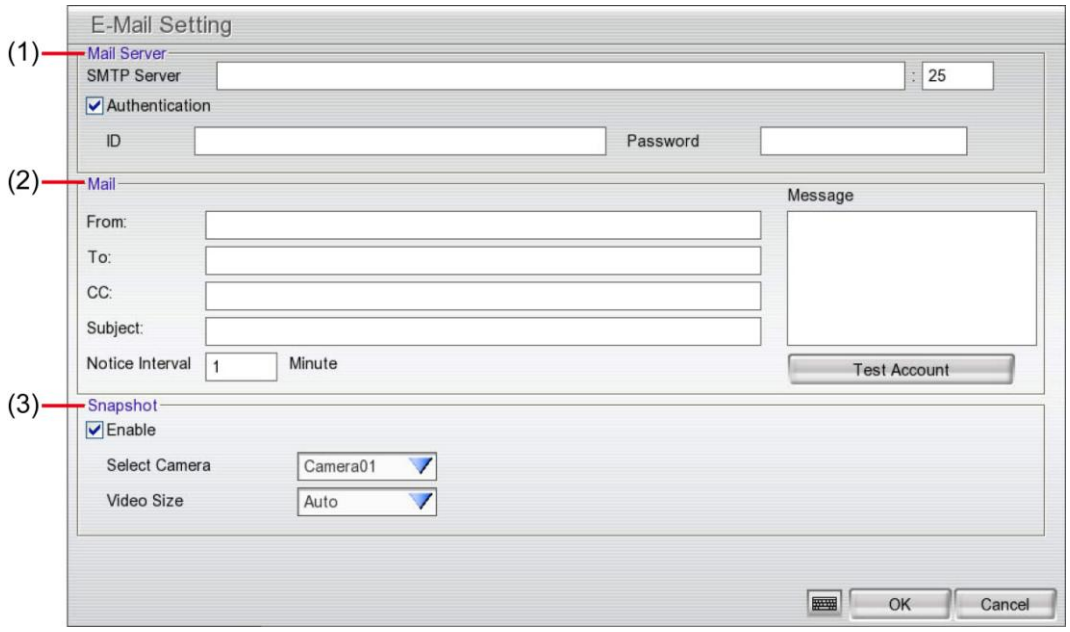

- **Play Warning Sound**

  Play alarm sound.

- **Send E-mail**

  Send an electronic text message. Beside the Send Email check box, click **Detail**.

  In the E-mail Setting dialog box, click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.




**(1) Mail Server**

Enter the **SMTP Server** and **port**. If your e-mail system requires user identification, enable **Authentication** check box and enter **ID** and **Password**.

**(2) Mail**

Fill the mailing information. Click **Test Account** button can exam the mail is workable or not.

- ✓ **From:** Enter the sender e-mail address.
- ✓ **To and CC:** Enter the recipient email address and separate it with comma or a semicolon (;).
- ✓ **Subject:** Enter the message title.
- ✓ **Message:** Type the message.
- ✓ **Notice Interval:** Set a time gap for mail re-sending when mail has failed to send.

**(3) Snapshot**

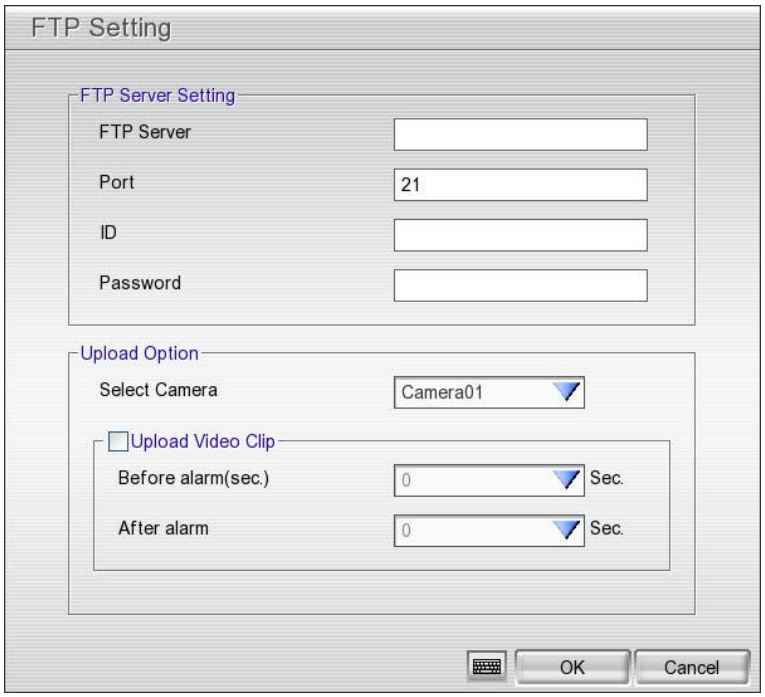
When send out the email, the DVR system will snapshot image of the selected camera channel.

- ✓ **Select Camera:** Select the channel that will be snapshot when alarm email is sending out.
- ✓ **Video Size:** Select the size of vide that will be taken when snapshot. Auto means default size that chosen by DVR system.

- **File Transmission via FTP**

Upload file to remote computer thru FTP (File Transfer Protocol).

- ✓ **FTP Server Setting**
  - ➢ **FTP Server:** Enter FTP server's IP address
  - ➢ **Port:** Enter the port number of FTP connection.
  - ➢ **ID& Password:** Enter the ID and Password that use to login FTP server.
- ✓ **Upload Option**
  - ➢ **Select Camera:** Select the camera that the images will be captured and send when the any alarm is triggered.
  - ➢ **Upload Video Clip:** Mark to enable the send the recorded image before and after alarm occurs, enter the time that before alarm occurs in **Before alarm(sec.)** and **After alarm**.



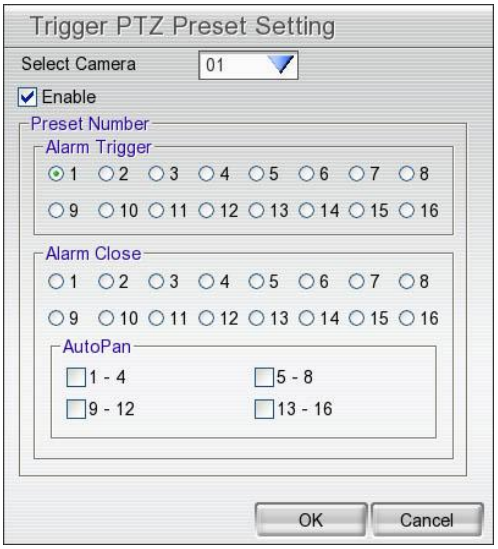

- **Start Recording**

  Record the video from the selected camera.


1. Beside the Start Recording check box, click **Detail**.
2. In the Alarm Recording Setting dialog box, select the camera to enable/disable video recording. Enable **All** to select all cameras.
3. In the Frame Rate selection, select **As Setting** to record the number of frames based on the Recording Setting.
4. In the **Start Record prior** text box, mark and set the number in second for the program to begin recording before the alarm has been trigger. The time range is 1~10 seconds.
5. In the **Stop Record after** text box, mark and set the number in second for the program to continue recording after the alarm has ended. The time range is 1~999 seconds. If user doesn't mark and set the time, the alarm recording will continue recording until alarm is reset.
6. Click **OK** to accept the new settings and **Cancel** to exit without saving.

- **PTZ preset point**

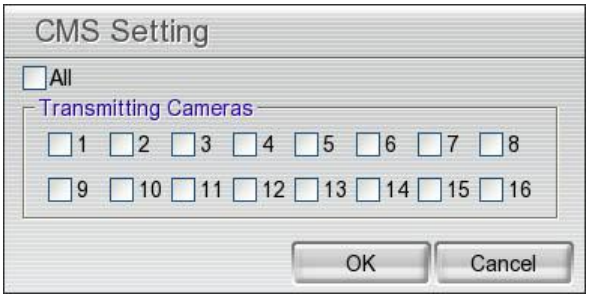
  Position the PTZ camera based on the preset point setting. Beside the PTZ preset point check box, click **Detail**. In the Trigger PTZ Preset Setting dialog box, select the PTZ camera number then select the **Enable** check box. Select the position of the PTZ camera when the alarm is activated and ended. For the PTZ camera end point, user can also select on preset position or **Auto Pan** between preset position groups.




- **Send to CMS (Central Management System)**

  Enable/disable the selected camera to send video to CMS when the alarm is activated.

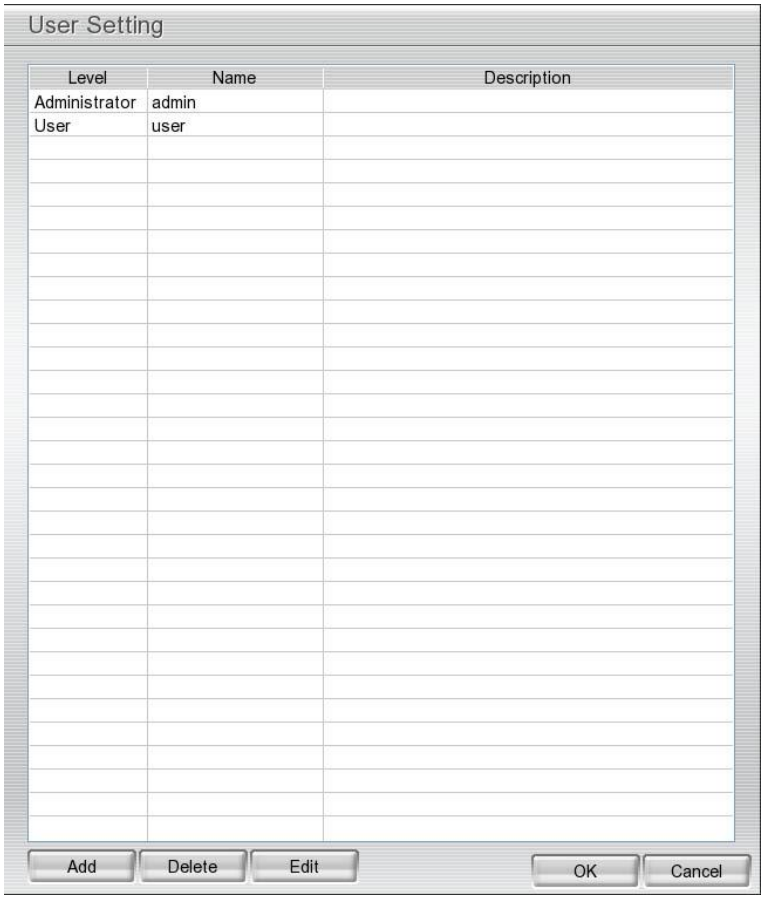
  Beside the Send to CMS check box, click **Detail**. In the CMS Setting, select the camera to enable/disable sending the video to CMS. Enable **All** to select all cameras. Then, click **OK** to accept the new settings and **Cancel** to exit without saving.



# 3.10 User Setup

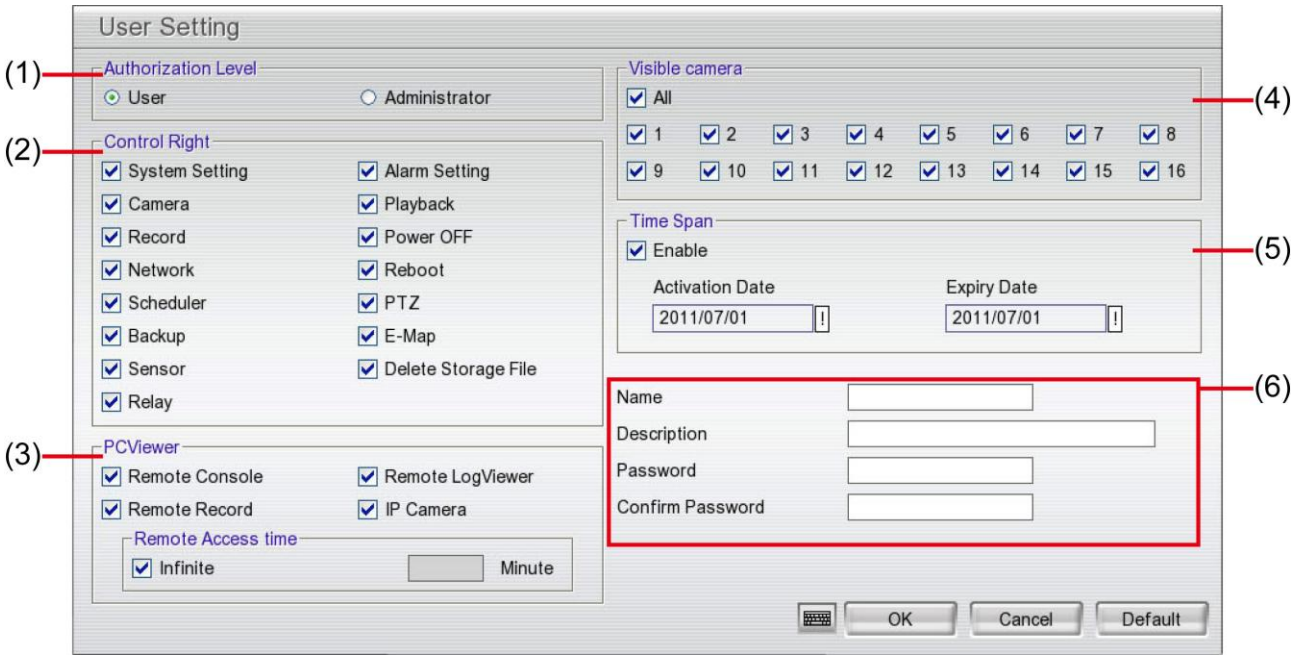
Only administrator level authority can access User Setting. The maximum user accounts are 32.

In the User Setting dialog box, click **Add** to insert a new user, **Delete** to remove the selected user, **Edit** to modify the user control right, **OK** to exit and accept the setting, and **Cancel** to exit without saving the setting.




**To Add a User Account:**

1. In the User Setting dialog box, click **Add**.
2. Select and fill in the following information.



**(1) Authorization level**

Select the status of the user. Administrator has full authority of control rights.

**(2) Control Right**

Enable the items that would allow the user to access.

**(3) PCViewer**

Enable/disable Web Viewer control right that allow the user to operate from a remote location using internet explorer.

- **Remote Console**
  Allow the user to remote modify DVR system setting.
- **Remote LogViewer**
  Allow the user to view the event log from remote site.
- **Remote Record**
  Allow the user to record from remote site.
- **IP Camera**
  Enable/disable user to add new IP camera when using the PCViewer.
- **Remote Access Time**
  Enable **Infinite** check box to access DVR without time limit. If you want to set time limit, un-mark and enter the number of minutes in **Minute** text box.

**(4) Visible Camera**

Select the camera number that would allow the user to access or view. To select all the cameras, enable the **ALL** check box.

**(5) Time Span**

Set the user account a specific time period that user only can use given account to login DVR program in that specific period. Mark **Enable** check box and select the **Activation Date** and **Expiry Date**.

**(6) Name**

Enter the user name.

**Description**

Enter the user description.

**Password**

Enter the user password.

**Confirm Password**

Enter the same user password for confirmation.

# Chapter 4 Using the Remote Programs

User can use Microsoft Internet Explorer to access DVR system by entering the IP address. To use this feature, make sure that your PC and DVR server both are connected to the internet and the Network feature is enabled.

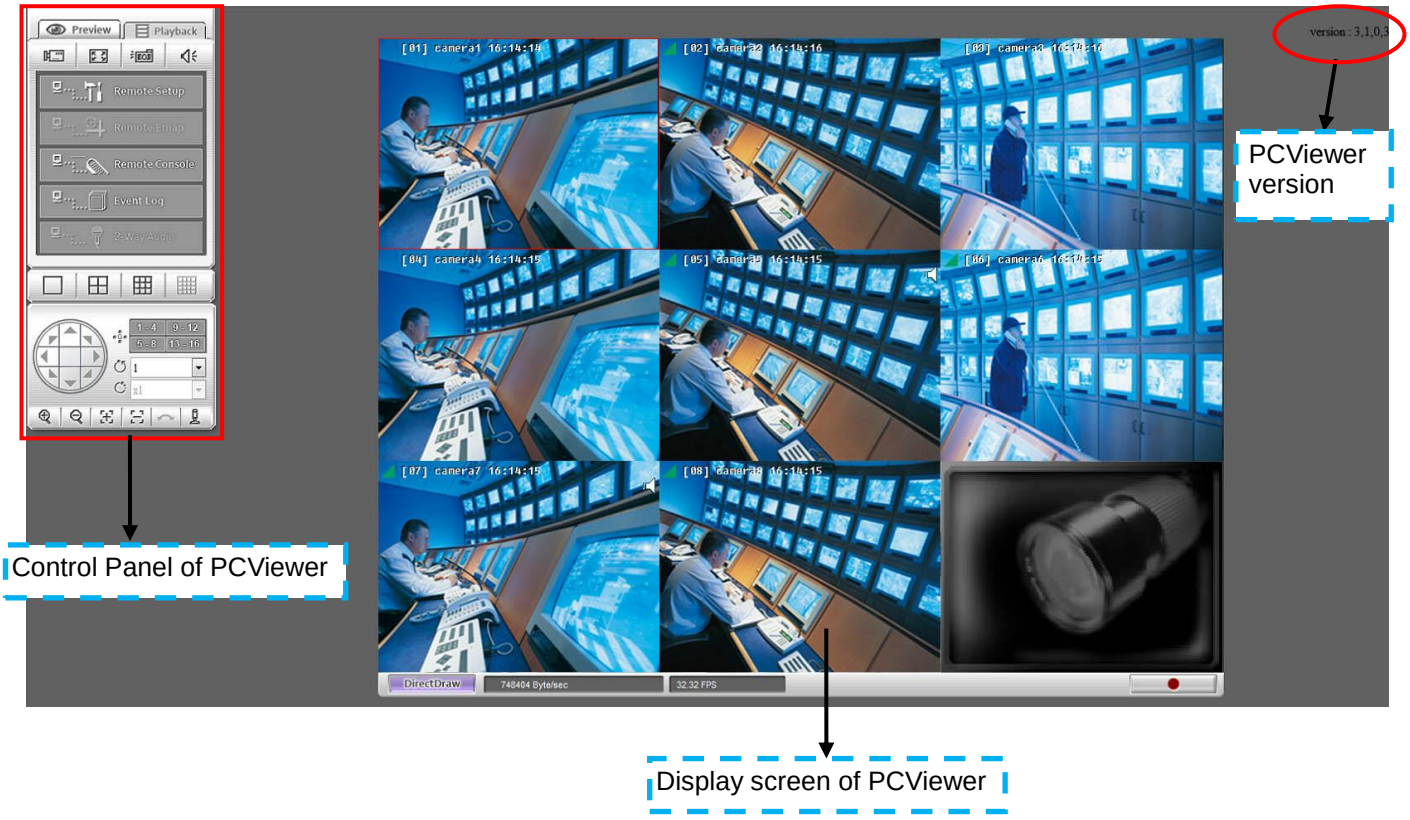
Accessing this feature for the first time you will be prompted by your browser to install PCViewerX.cab, allow the installation and you should be able to connect and login afterwards.

For Windows XP/Vista/7, click Install when the Internet Explorer - Security Warning dialog box appears.

After installing the PCViewerX.cab and when connecting to the DVR system, you are required to enter account ID and password; then, select the type of network. **Admin** account has the authority to remote setup the DVR system configuration on PCViewer. User account only can preview the video on PCViewer and Remote Console.

- To have smooth remote frame rate, it's suggested to connect DVR by selecting **WAN (512K/64K)** as the Network Type on PCViewer.
- To operate full remote function, please use "Administrator" account to execute IE browser.

After login, the PCViewer interface is displayed.



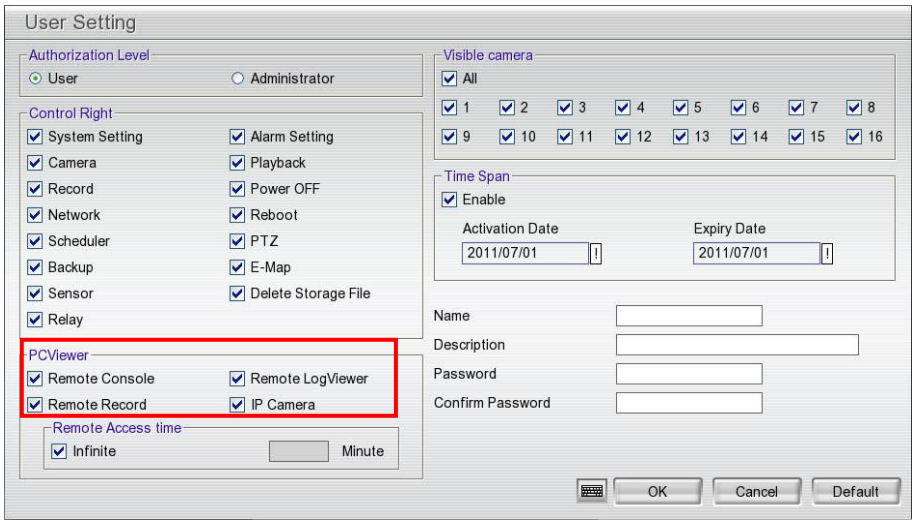
# 4.1 Familiarizing the Buttons in PCViewer

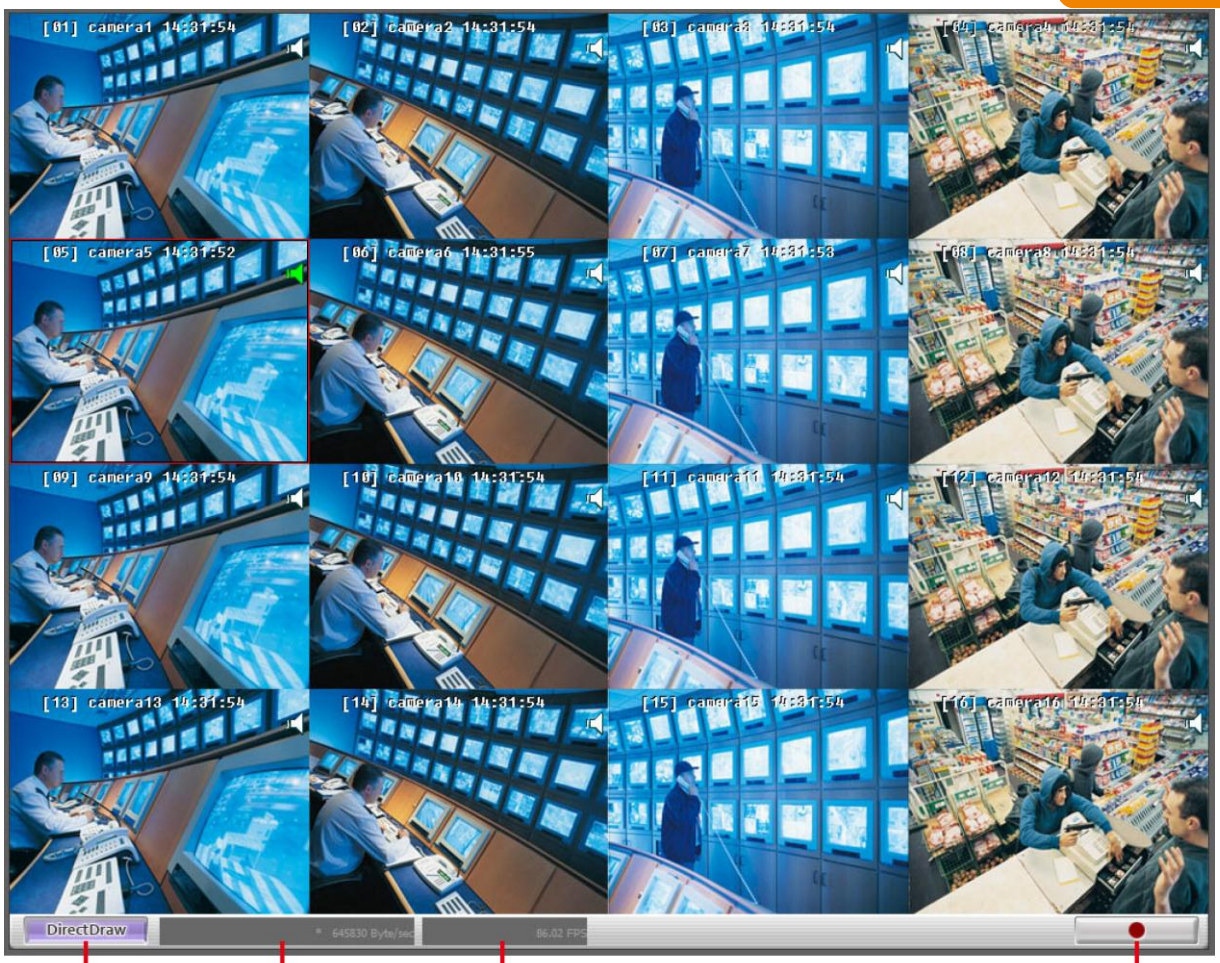
## 4.1.1 PCViewer Screen

Right-clicking on the PCViewer video screen, enables you to start video recording, change video quality, switch camera and enable/disable DirectDraw.

Adjusts video quality only support on analog camera channel.

To operate the start recording on short-cut menu, the account authority that user uses to access DVR system needs to be enabled in User setting.





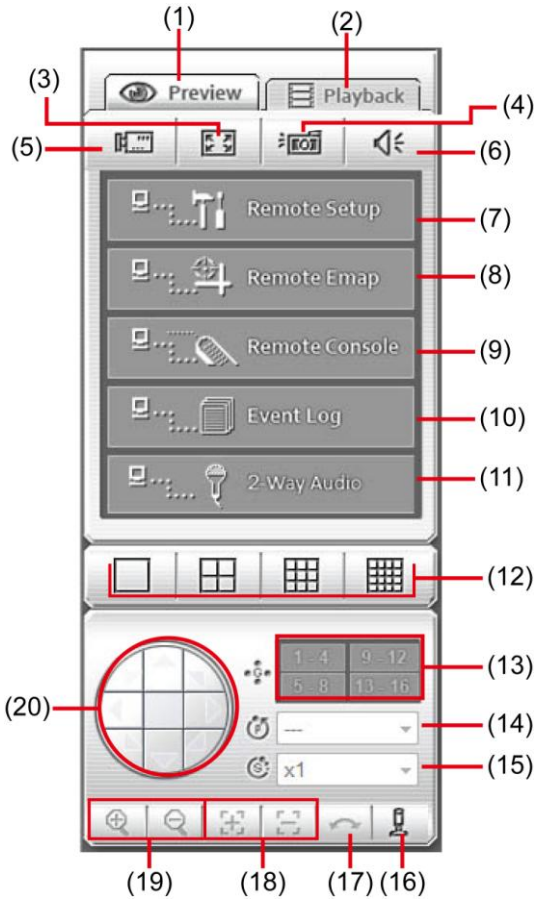

To view POS data on PCViewer, please switch to 1-split screen mode and right-click on screen to make sure the video quality is **High**. However, if DVR system didn't connect to POS device and receive POS data, user won't be able to view POS data on PCViewer site.

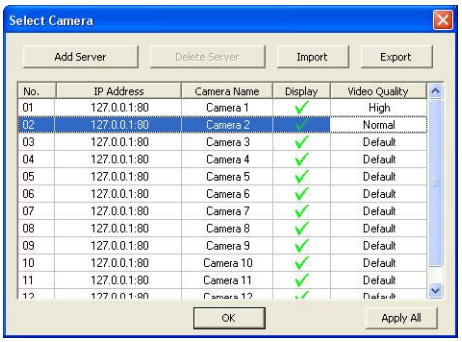
| Name | Function |
|---|---|
| (1) DirectDraw | Enhance the video quality. |

Not all graphic cards can support this function. If you cannot see the screen display correctly or screen is messed, please check with VGA card vendor.

| | |
|---|---|
| (2) Received file size | Indicate the size of the data being sent per second. |
| (3) Camera frames | Indicate the number of frames per second. |
| (4) Record | Start to record the video of the selected camera in AVI format. Directly click screen to select the channel that user wants to record and press **Record** button. |

## 4.1.2 PCViewer Control Panel

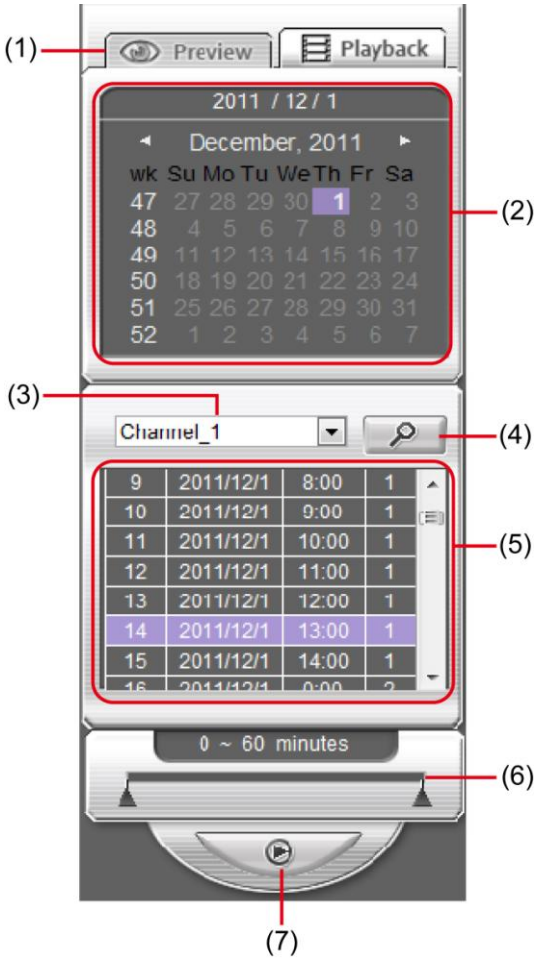



| Name | Function |
|---|---|
| (1) Preview Mode | Switch to preview mode control panel |
| (2) Playback Mode | Switch to playback mode control panel(see also Chapter 4.1.3) |
| (3) Full screen | Use the entire area of the screen to only display the video.<br>To return, Right click the mouse or press ESC on the keyboard. |
| (4) Snapshot | Capture and save the screen shot in *.bmp format. |
| (5) Select cameras to view | Select to the view camera from different server. In Select Camera dialog box, Display column, click to enable/disable viewing the camera.<br>Click **Add Server** and select the server type between DVR and IP Cam to add.<br>Click **Delete Server** to delete the selected item.<br>Click **Import** to load the previous saved list.<br>Click **Export** to save the list.<br>Click **Apply All** to change all the camera video quality based on the selected setting.<br>Click **OK** to exit.<br>  |

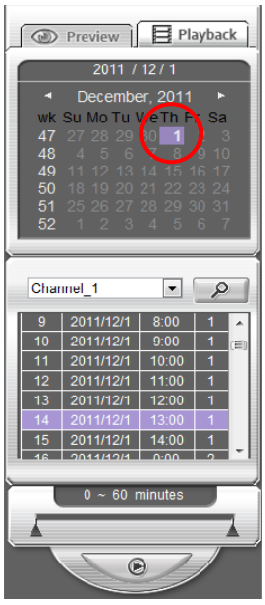
| Name | Function |
|---|---|
| (6) Audio | Enable/disable remote sound. |
| (7) Remote setup | Change the DVR server settings (see also Chapter 4.1.4) |
| (8) Remote Emap | To call out the Emap of remote DVR server to view. |
| (9) Remote Console | Initiate Remote Console. It allows you to control DVR server (see also Chapter 4.2). |
| (10) Event Log Viewer | Display the Event logs, Operation logs, System logs, and Network logs. |
| (11) 2-Way Audio | Enable/disable 2-way audio function. This function allows the client and server to talk via internet using MIC.<br>Make sure your microphone and speakers work before using this function. If the DVR server Talk to web-client setting is disabled, you won't be able to hear from the other side. |
| (12) Split screen view | Select from four different split screen types to view all the cameras. |
| (13) Auto Pan Group | Operate the PTZ cameras automatically based on the selected camera group preset position number. |
| (14) Camera preset position number | Move the PTZ camera to the preset point. |
| (15) Direction buttons' moving speed | Adjust the moving speed of the PTZ camera lens. This speed will apply to the **(18) Direction buttons**' moving speed only. |
| (16) Select PTZ | Choose to enable/disable the PTZ camera. In the Select PTZ dialog box, Select column, click to enable/disable viewing and controlling the PTZ camera.<br>Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting. |
| (17) Atuo Pan | Enable the PTZ cameras automatically based on the selected camera group preset position number. |
| (18) Zoom +/- | Zoom the image in or out. |
| (19) Focus +/- | Adjust the focus manually to produce clear image. |
| (20) Direction Buttons | Adjust and position the focal point of the PTZ camera. The supported direction buttons are depended on the PTZ camera has supported. |

## 4.1.3 Playback Mode Control Panel

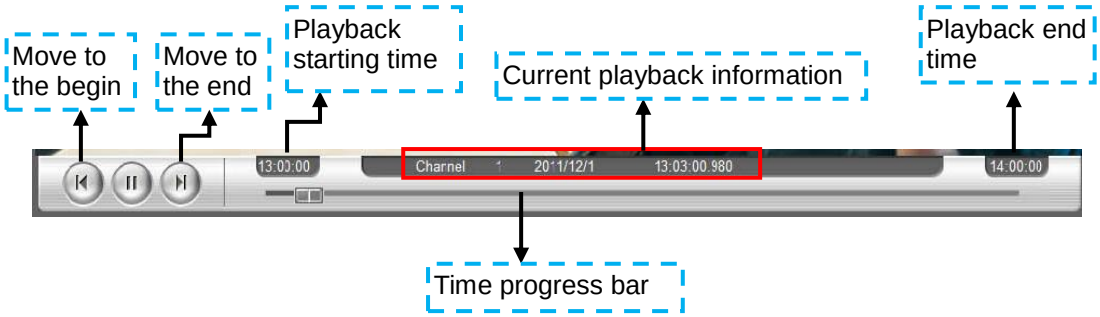
The PCViewX.cab. installation is required for first time using PCViewr playback function. The PCViewX.cab installation requirement is appeared when user select Playback function.




| Name | Function |
|---|---|
| (1) Preview Mode | Switch to preview mode control panel |
| (2) Date | Select the date that user wants to playback. Click ◀ ▶ icon can switch month and year. The date in color highlight means it has recorded data. |



| Name | Function |
|---|---|
| (3) Channel | After select the date, please select the channel that user wants to playback or select all channels. |
| (4) Search button | After selected date and channel, click search button to find the recorded file. The result of search result is displayed below area. |
| (5) Search result | Display the search result that is searched base on the date and channel user has selected. Select the recorded time file in result table and click play button to playback. |
| (6) Playback time progress bar | User can setup the certain time period for playback. The recorded file default is playback in 60 minutes long. User can adjust to the specific time period to playback instead to move the scroll bar while playback. |
| (7) Play button | After select the file, click it to start playback. |

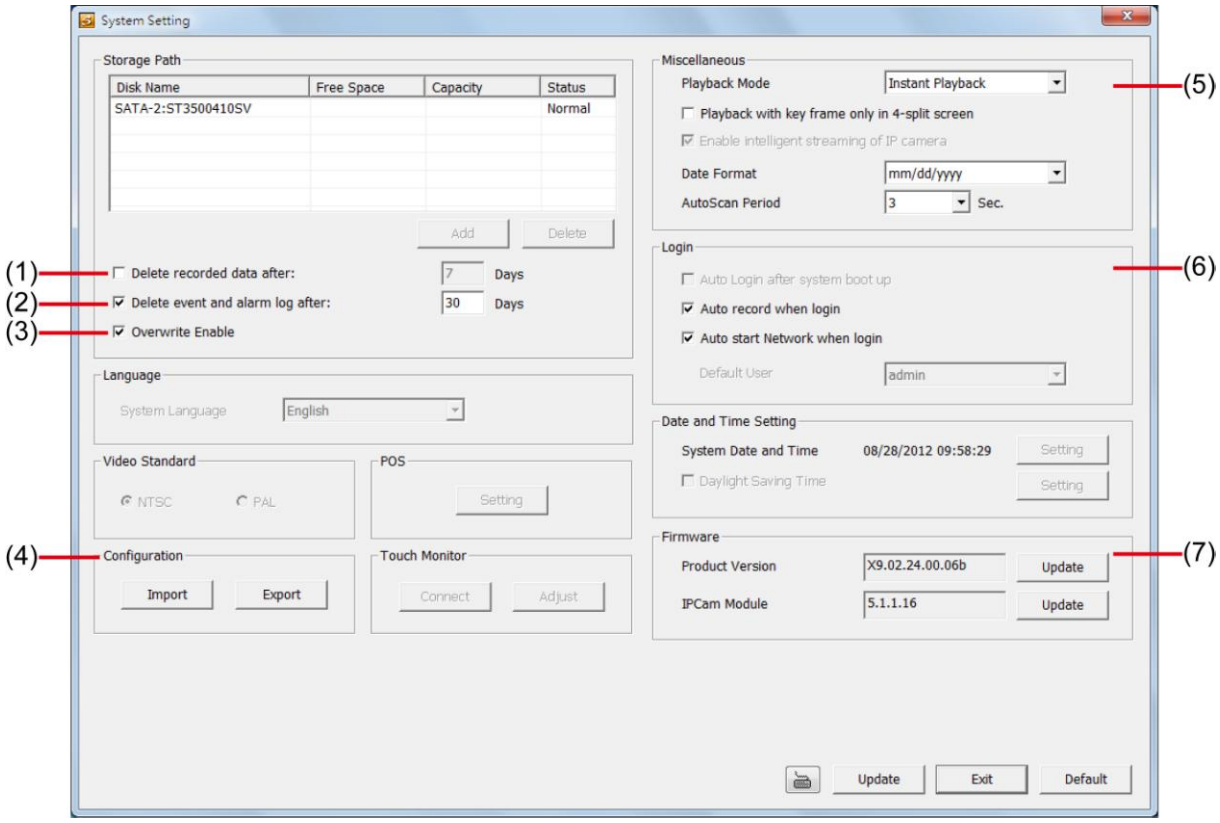


## 4.1.4 To Setup Remote System Setting

The setting here applies to Remote DVR only.

### 4.1.4.1 System Setting

In the System Setting windows, click **Update** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting.




**(1) Delete recorded data after**

If you want the system to automatically erase the data after a certain days, enable the **Delete recorded data after** check box and enter the numbers of days in **Days** text box.

**(2) Delete event and alarm log after**

If you want the system to automatically erase the event and alarm log files after a certain days, enable the **Delete event and alarm log after** check box and enter the numbers of days in **Days** text box.

**(3) Overwrite Enable**

When there is not enough free space to record one hour data, the system automatically replaces the oldest data.

**(4) Configuration**

Backup a copy of all the settings and allows you to regain the same settings back. To save the current settings, click **Export**. To replace the settings with the one you have saved, click **Import**.

**(5) Miscellaneous**

Enable the conditions in **Miscellaneous** section you want the system to perform.

- **Playback Mode**

  Select the mode of playback the video.

  - **Select date and time:** Select the date and time which user wants to playback.
  - **Play the last file:** Automatically playback the video from the last hour
  - **Instant Playback:** Automatically playback the video which has just recorded

- **Date Format**
  Select the date format which wants to display in **Select date and time** playback mode
- **Auto Scan Period**
  Set the time gap of the Auto Scan function from 3 to 10 seconds. This automatically switches to the next video in cycle depending on the set time gap.

**(6) Login**

Enable the conditions in Login section you want the system to automatically carry out.

- **Auto record when login**
  Automatically start video recording when the DVR is executed.
- **Auto start Network when login**
  Automatically connect to network when the DVR is executed.

**(7) Firmware**

- **Product Version:** Upgrading the firmware of DVR system and IP camera patch file. Please download the firmware file from web site.
  1. Save the firmware on root directory of USB pen drive. Then, plug USB pen drive to DVR server.
  2. Click **Update** button, a **Select File** window will show up.
  3. Click ... button and select where the firmware is located.
  4. Click **Upgrade** to start updating.
- **IPCam Module:** Update IP camera patch.
  1. Save the firmware on root directory of USB pen drive. And then, plug USB pen drive to DVR server.
  2. Click **Update** button, a **Select File** window will show up.
  3. Click ... button and select where the IP camera patch file is located.

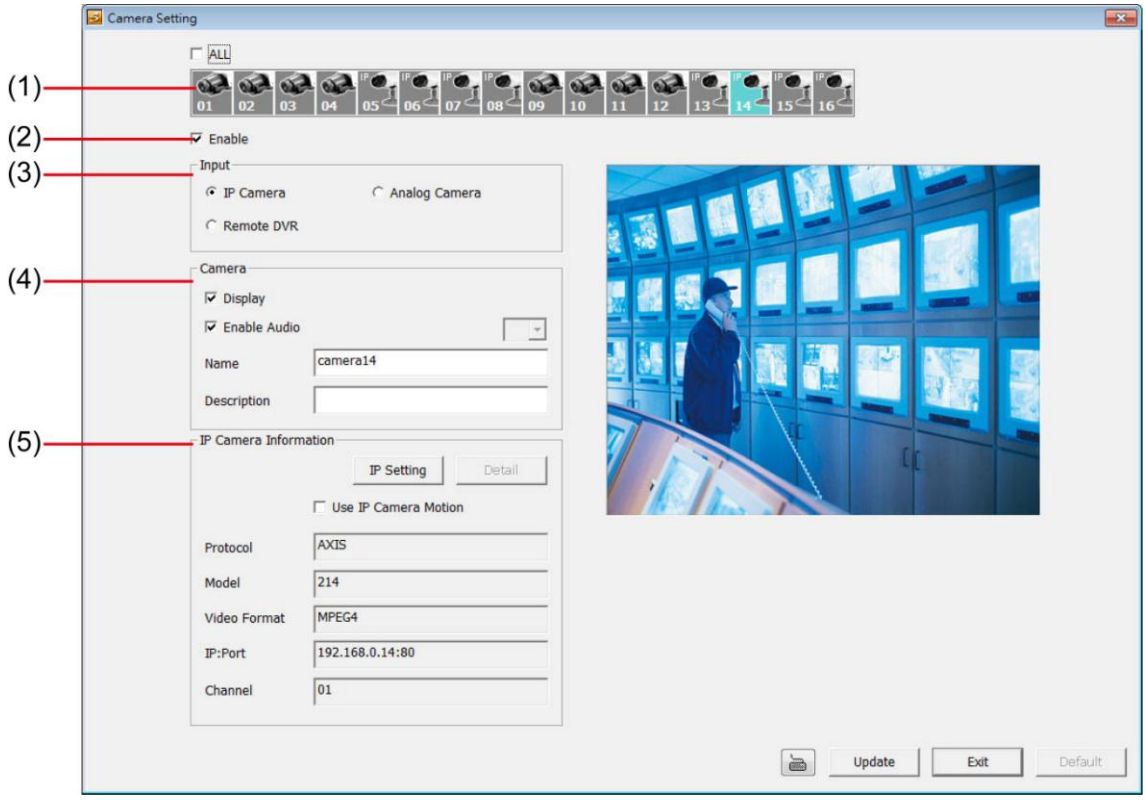
  Click **Upgrade** to start updating.

### 4.1.4.2 Camera Setting

Select the camera from remote DVR servers to modify settings. In the Camera Setting windows, click **Update** to save and apply the new settings, click **Exit** to exit without saving.

**IP Camera Setting**

EH6108H+ only supports 8 channels.




**(1) Camera Icons**

Select the camera number you want to adjust the video setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, Right click on the camera icon. To select one camera only, Left click on the camera icon. The camera icon turns red when it is selected.

**(2) Enable**

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

**(3) Input**

Select the type of camera as IP camera. For General camera setting, see Analog Camera Setting. To modify camera of remote DVR, see Remote DVR Camera Setting.

**(4) Camera**

- **Display:** Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio:** Audio function doesn't support on IP camera.
- **Name:** Change the camera name

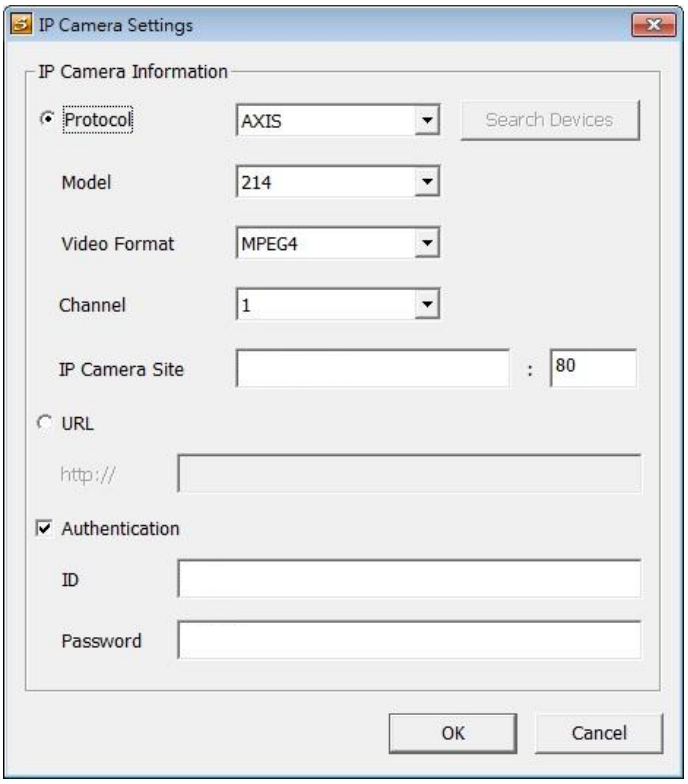
DVR supports Chinese characters but only can be entered in remote site (remote setup).

- **Description:** Add a short comment

**(5) IP Camera Information**

To setup IP camera and display current IP camera information.

- **IP Setting:** Click **IP setting** to add the IP camera.

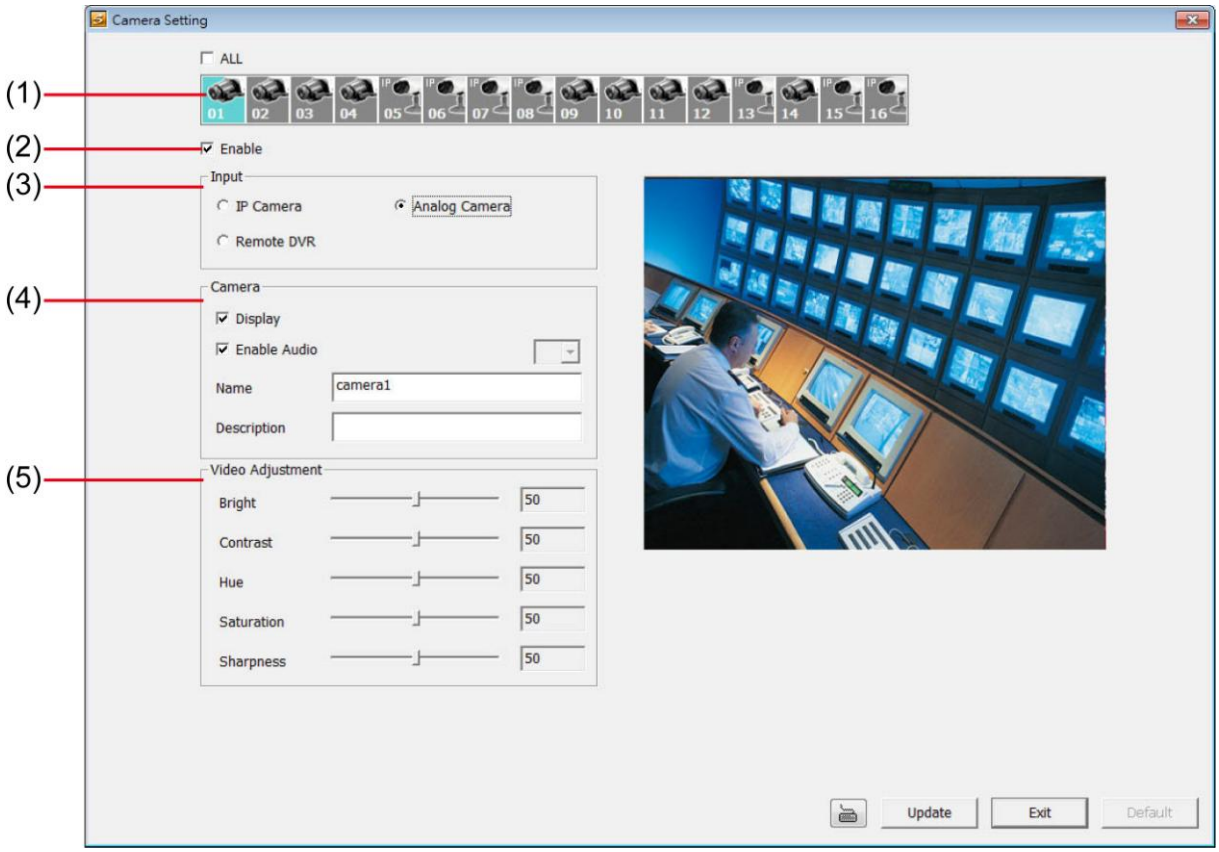



1. Click the radio button of **Protocol** to start setup IP camera.
2. Select the **Protocol**, **Model**, **Video Format**, and **Channel** of the IP camera.
3. Enter IP address and connecting port in **IP Camera Site** column.
4. Also, user can enter URL of IP camera instead of IP address.
5. If the IP camera has authority request, please enable **Authentication** and enter **ID** and **Password**.
6. Click **OK** to connect with the IP camera.

## Analog Camera Setting

Select the camera from remote DVR servers to modify settings. In the Camera Setting windows, click **Update** to save and apply the new settings, click **Exit** to exit without saving.

EH6108H+ only supports 8 channels.




**(1) Camera Icons**

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

**(2) Enable**

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

**(3) Input**

Select the camera type as **General Camera**. For IP camera setting, see IP Camera Setting. To modify camera of remote DVR, see Remote DVR Camera Setting.

**(4) Camera**

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio**
  Enable/disable audio function.
- **Name**
  Change the camera name

DVR supports Chinese characters but only can be entered in remote site (remote setup).

- **Description**
  Add a short comment

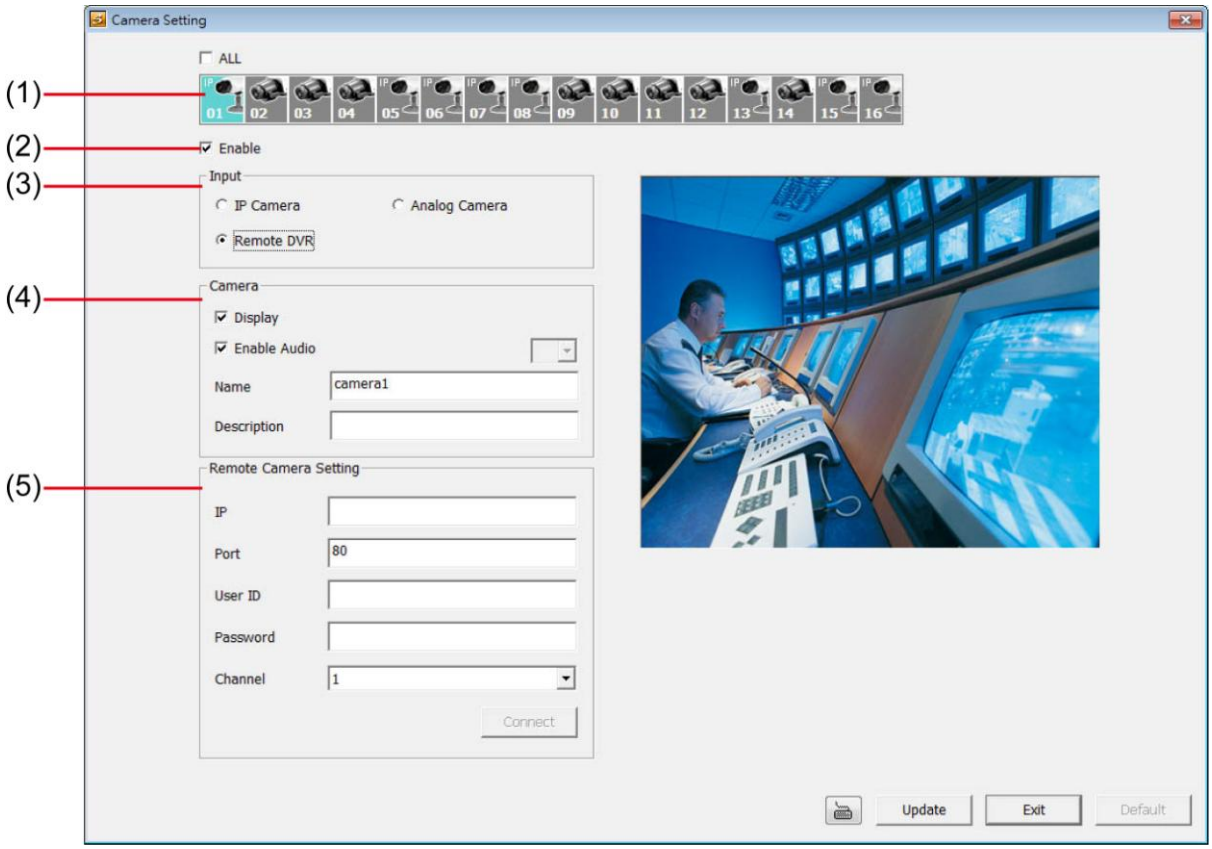
**(5) Video Adjustment**

Adjust the Brightness, Contrast, Hue and Saturation of the camera.

## Remote DVR Camera Setting

Select the camera to modify settings. In the Camera Setting windows, click **Update** to save and apply the new settings, click **Exit** to exit without saving.

EH6108H+ only supports 8 channels.




**(1) Camera Icons**

Select the camera number you want to view. To enable/disable all cameras, click **ALL** check box.

**(2) Enable**

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

**(3) Input**

Select the camera type as **Remote DVR**. For IP camera setting, see IP Camera Setting. To modify analog camera setting, see Analog Camera Setting.

**(4) Camera**

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Enable Audio**
  The audio function doesn't support for remote DVR.
- **Name**
  Change the camera name

DVR supports Chinese characters but only can be entered in remote site (remote setup).

**(4) Remote Camera Setting**

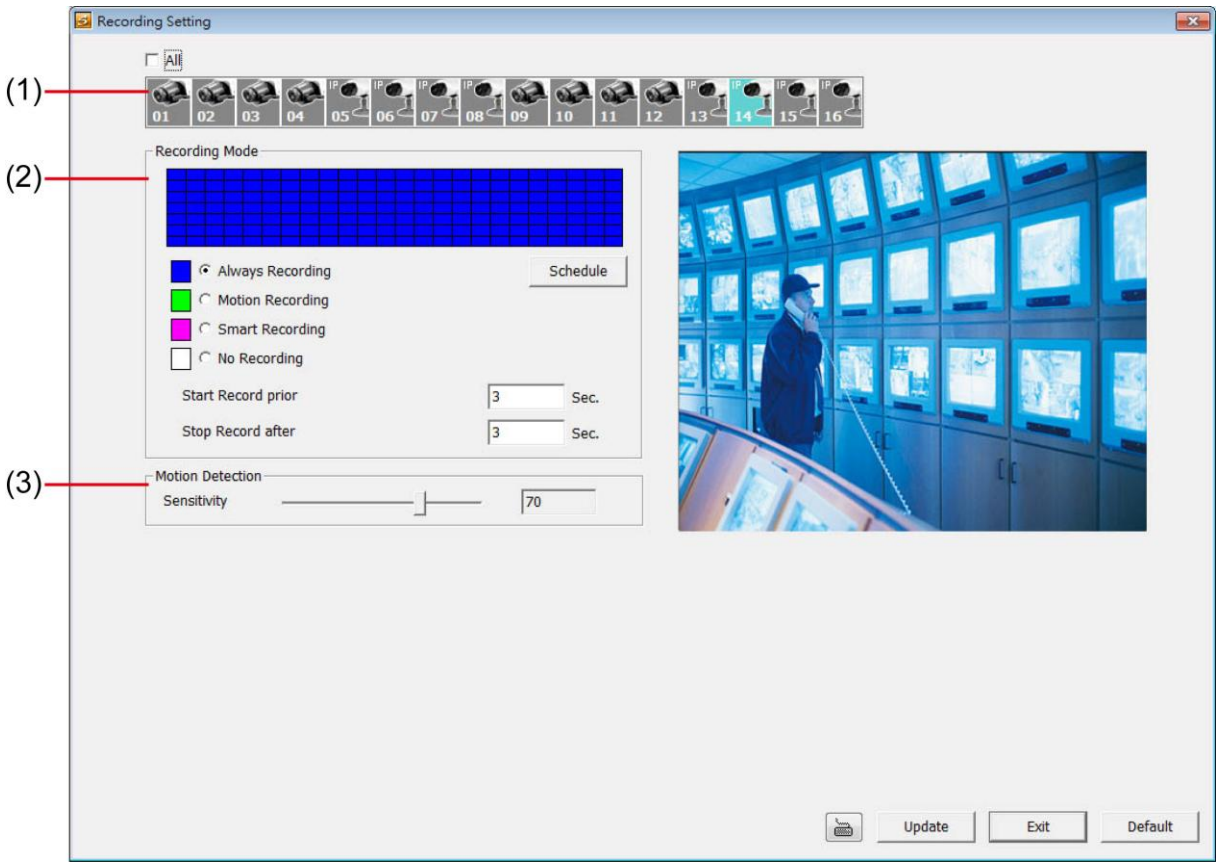
- **Description**
  Add a short comment
- **IP**
  Enter the IP address of the camera
- **Port**
  The port for connection
- **User ID**
  Enter the user id that for connecting authority
- **Password**
  Enter the password that is for connecting authority
- **Channel**
  Select the channel of connected camera

### 4.1.4.3 Record Setting

In the Recording setup windows, click **OK** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting.

**Record Setting of IP Camera**

EH6108H+ only supports 8 channels.

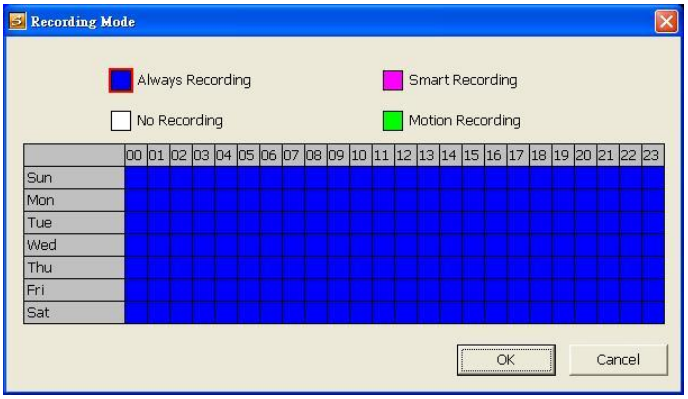



**(1) Camera Icons**

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns red when it is selected.

**(2) Recording Mode**

The horizontal blocks from 00 to 23 represent the time in 24-hour clock and the vertical block represent the day in the week block (Sunday to Saturday). To record in full 24 hours and 7 days a week, select the recording mode and click the ⊙ button. If you want to only record at a particular time or day, click **Schedule** button and select the **Recording Mode** , and then click on the time or day blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen.




The recording modes are listed below:

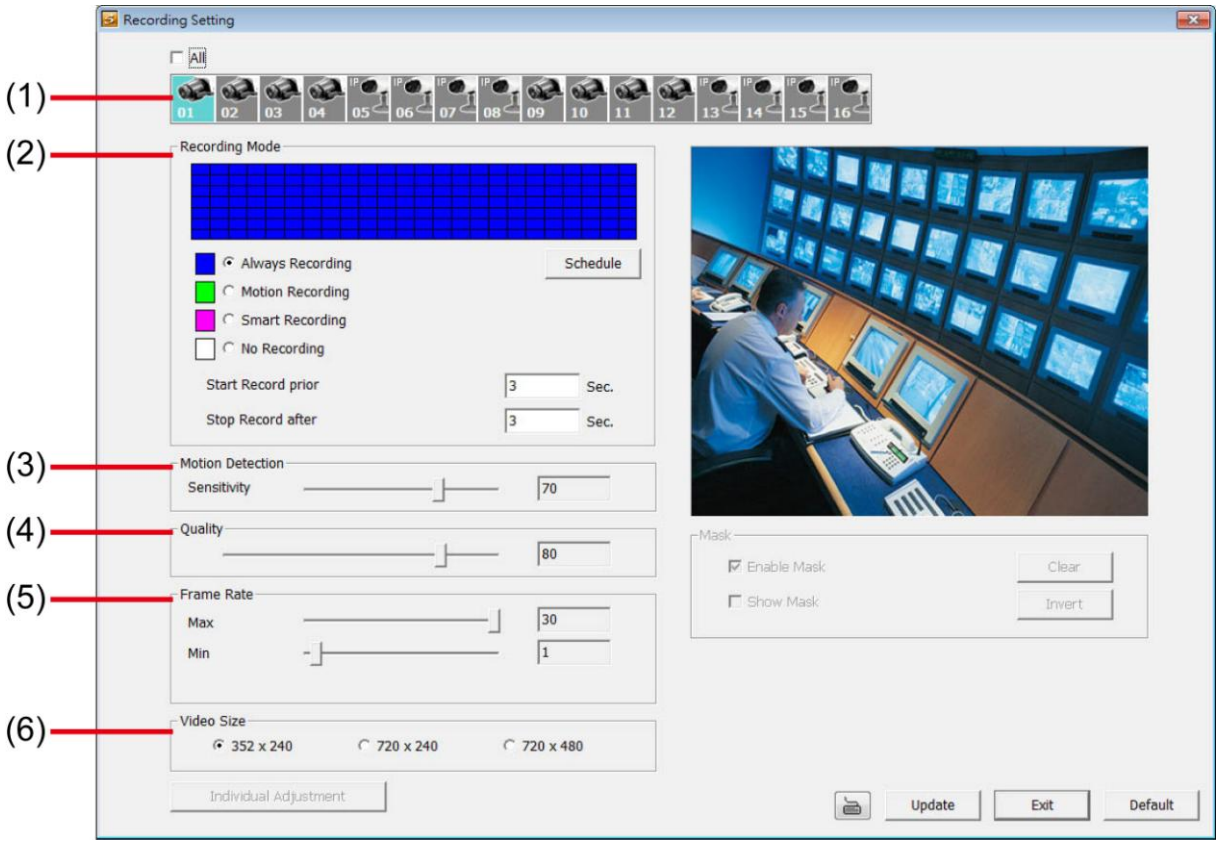
- **Always Recording**
  Record the video from the selected camera and save it to the designated storage path
- **Motion Recording**
  Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.
- **Smart Recording**
  Automatically switch to recorded at the maximum frame rate once a motion is detected and if there is no motion, it records key frame only.
- **No Recording**
  The system won't do any recording.

**(3) Motion Detection**

Adjust the sensitivity of the motion detection. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen.

## Record Setting of Analog Camera

EH6108H+ only supports 8 channels.

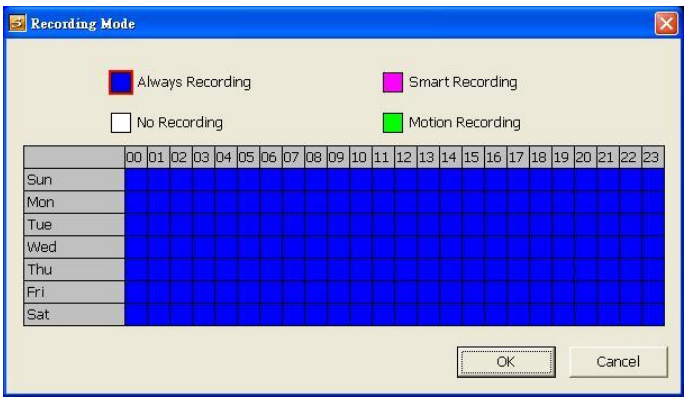



**(1) Camera Icons**

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns purple when it is selected.

**(2) Recording Mode**

The horizontal blocks from 00 to 23 represent the time in 24-hour clock and the vertical block 1 to 7 represent the day in the week block (Sunday to Saturday). To record in full 24 hours and 7 days a week, select the recording mode and click the ⊙ button. If you want to only record at a particular time or day, click **Schedule** button and select the **Recording Mode** , and then click on the time or day blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen.




The recording modes are listed below:

- **Always Recording**

  Record the video from the selected camera and save it to the designated storage path

- **Motion Recording**
  Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.
- **Smart Recording**
  Automatically switch to recorded at the maximum frame rate setting once a motion is detected and if there is no motion, it records at the minimum frame rate setting.
- **No Recording**
  The system won't do any recording.

**(3) Motion Detection**

Adjust the sensitivity of the motion detection. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen.

**(4) Quality**

Adjust the video quality. The higher the value, the lower the compression level and uses more hard disk space.

**(5) Frame Rate**

Set the maximum and minimum number of frames to be recorded during motion and motionless state. The frame rate ranges from 01 to 30 for NTSC and 01 to 25 for PAL. The higher the frame rate, it uses more hard disk space.

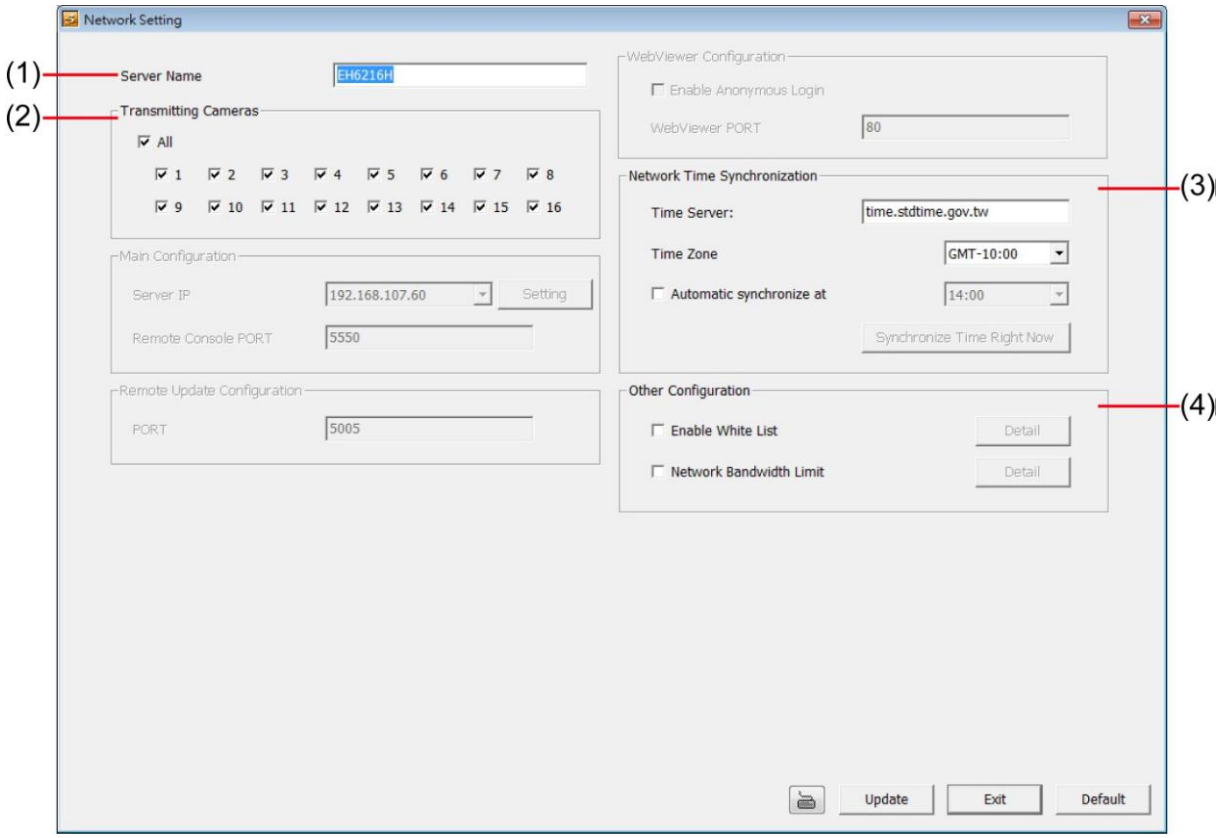
Always recording frame rate is depending on max frame rate value.

**(6) Video Size**

Select the size of the video and click the ⊙ button. The higher the size, the larger the file it create.

### 4.1.4.4 Network Setting

In the Network Setting dialog box, click **Update** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting. For the network service ports that use by DVR server, please see Appendix A.




**(1) Server Name**

Assign a name for the DVR unit. Alphabet letters and numbers only.

**(2) Transmitting Cameras**

Select and click on the camera number in the Transmitting Camera section you want to make it accessible via internet using PCViewer, Remote Console, PDA Viewer and JavaViewer (still image). To select all the cameras, enable the **ALL** check box.

**(3) Network Time Synchronization**

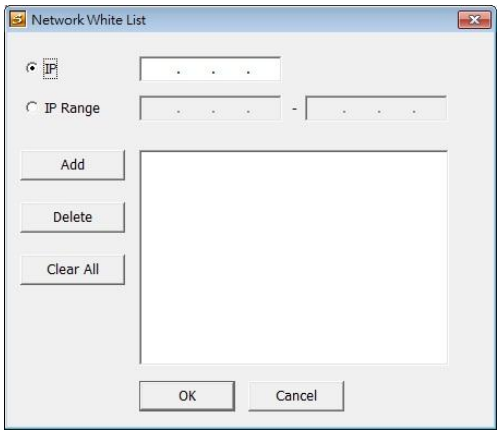
Adjust the DVR system time same as network time server. Fill in the **Time Server** IP address or domain name. Select the **Time Zone** that DVR is located. And then, mark the **Automatic Synchronize** time to set automatic synchronize time on a daily basis.

**(4) Other Configuration**

- **Enable White List**

> Without any IP address/IP range is assigned in White List table, none of IP address/IP range is allowed to access DVR when White List function is enabled.

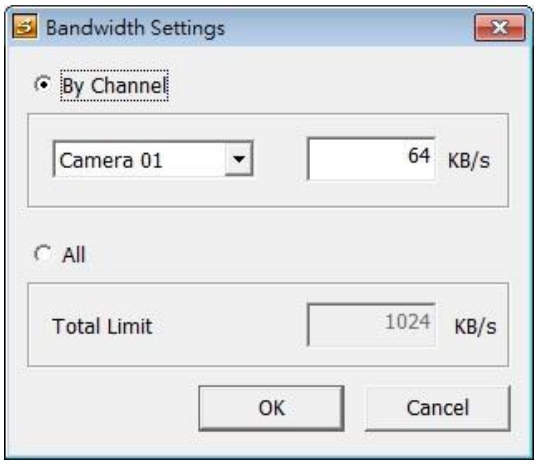
An access permit list for the remote accessing of DVR server. Enter the IP address and click **Add**. Or, enter a range of IP address and click **Add**. To delete the IP from the list, select the IP and click **Delete** button. To reset the input, click **Clear** button.




- **Network Bandwidth Limit**

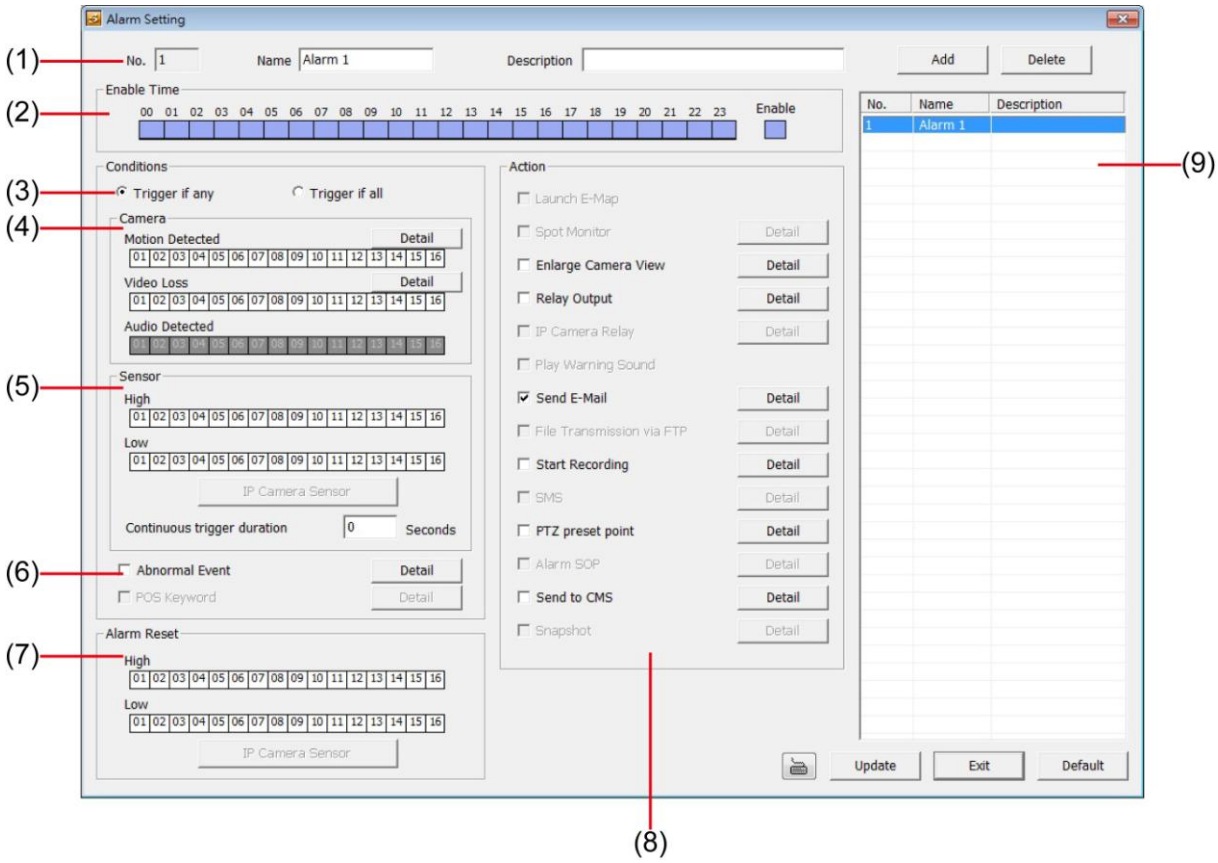
**By Channel:** Set the network bandwidth by each channel.

**All:** Set the total network bandwidth consumption limit.

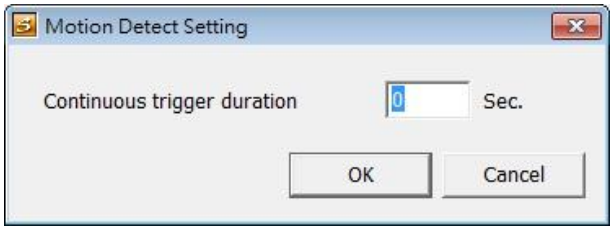


## 4.1.4.5 Alarm Setting

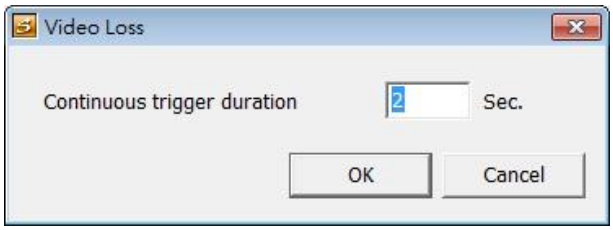
In the Alarm Setting dialog box, click **Add** to insert and set new alarm setting, click **Delete** to remove the selected alarm setting, click **Update** to save the setting, **Exit** to exit without saving, and **Default** to revert back to original factory setting.



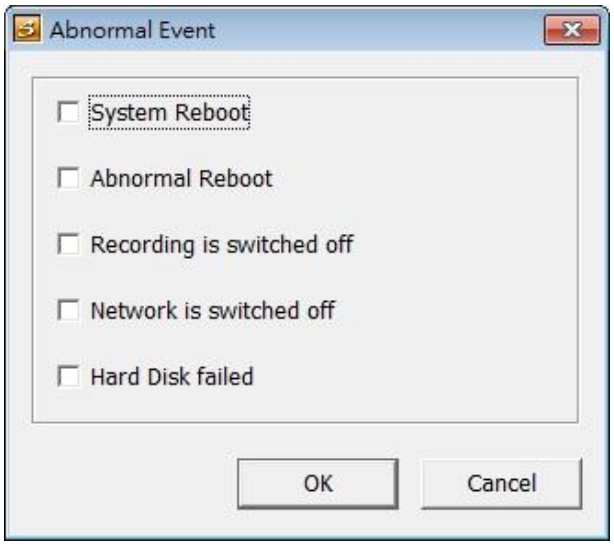

1. Click **Add** to insert and set a new alarm setting. Click the items in the **(9) Alarm Setting List** if you want to modify the alarm setting.
2. In **(1) No./Name/Description** enter alarm name and description. Alarm **No.** will be created by DVR system.
3. In **(2) Enable Time**, the number from 00 to 23 represent the time in 24-hour clock. Select the time and click the block you want to activate or deactivate the alarm function. When it is deactivated the color of the block turns white.
4. In **(3) Conditions**, you can set "**Trigger if any**" to activate if it falls to one of the conditions or "**Trigger if all**" to activate if it falls to all conditions.
5. In **(4) Camera** section, select and click on the camera number (01 to 16) in **Motion Detected** and **Video Loss** to set the condition for the system to alarm.
   - **Continue trigger duration:** Set a time period that when sensor has been trigger and stay in the same status for that period, then the alarm will be sent out.
   - **Motion Detected:** Click on the camera number to the motion condition for the system to alarm. Click **Detail** to setup the system to send out the alarm when motion has been detected to last the time that user has entered in **Continuous trigger duration**.



- **Video Loss**: Click the camera number to set the alarm condition when video is lost. Click the **Detail** to setup the system to send out the alarm when video has been lost to last the time that user has entered in **Continuous trigger duration**.




6. In **(5) Sensor**, select and click on the sensor number to set the condition for the system to alarm. If the sensor normal status is high, set the sensor condition to low.
7. In **(6) Abnormal Event**, mark check box to enable and set the condition of the event for system to alarm.




- **Reboot:** when the DVR system reboot without abnormal condition, the system will send out the alarm message.
- **Abnormal Reboot:** when the DVR system reboot in irregular condition, the system will send out the alarm message.
- **Recording is switched off:** when the recording has been stopped, the system will send out the alarm message.
- **Network is switched off:** when the network connection of DVR system is lost, the system will send out the alarm message.
- **Hard Disk failed:** when the hard disk doesn't work normally, the system will send out the alarm message.

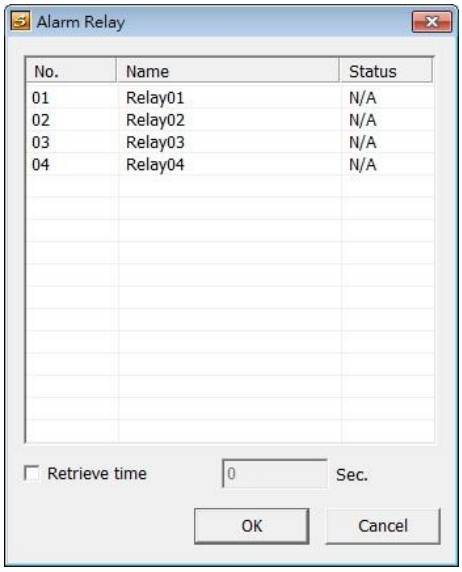
8. In **(7) Alarm Reset**, click the camera number to set the reset condition of alarm. Once alarm is reset, all alarm action will stop at the moment. If the sensor normal status is high, set the alarm reset condition to low.
9. In **(8) Action**, you may now set the alarm action for the system to perform when the alarm condition is activated.

- **Enlarge Camera View**


Switch to only display video in Preview mode from where the alarm is activated.

a. Select the camera from drop down list to specify which camera video to be enlarged on screen when the alarm is triggered.
b. **Retrieve time:** set the waiting duration before system switching back to original Preview mode. If the retrieve time is un-mark, the alarm video will keep enlarging until user switch back to Preview mode manually. The retrieve time range is 0~ 600 seconds.

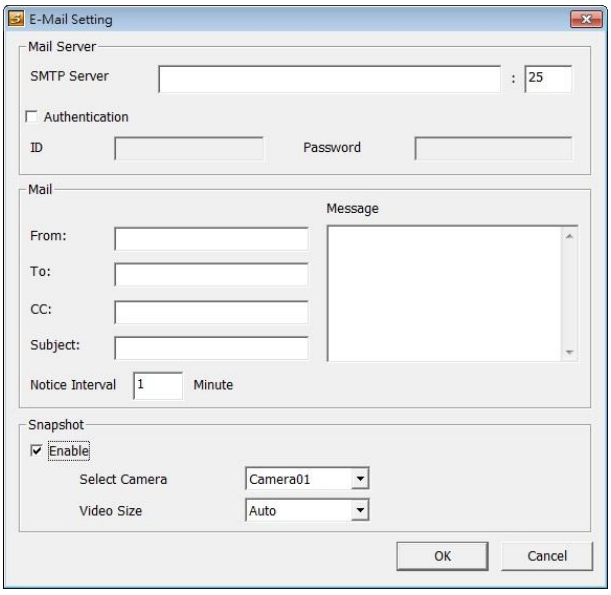
- **Relay Output**




Set to enable/disable the relay operation when the alarm is activated and to extend additional time in second before it stops the relay operation.

1. Beside the Relay Output check box, click **Detail**.
2. In the Alarm Relay dialog box, select from the available relay list and in the ON column, set to enable/disable the relay operation when the alarm is activated.
3. In the Retrieve time check box, you may enable/disable to extend the relay operation time and set the duration in second.
4. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

- **Send E-mail**




Send an electronic text message. Beside the Send Email check box, click **Detail**.

In the E-mail Setting dialog box, click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.

- **Mail Server**

  Enter the **SMTP Server** and **port**. If your e-mail system requires user identification, enable **Authentication** check box and enter **ID** and **Password**.

- **Mail**

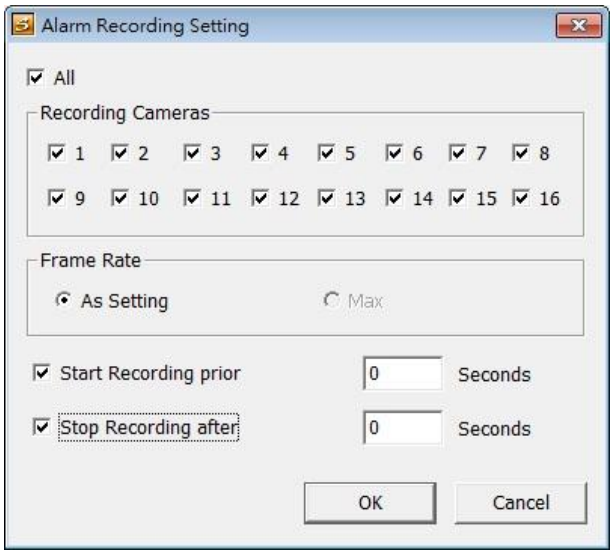
  Fill the mailing information.

  - ✓ **From:** Enter the sender e-mail address.
  - ✓ **To and CC:** Enter the recipient email address and separate it with comma or a semicolon (;).
  - ✓ **Subject:** Enter the message title.
  - ✓ **Message:** Type the message.
  - ✓ **Notice Interval:** Set the period of time before it sends another e-mail notice.

- **Start Recording**

  Record the video from the selected camera.

  Beside the Start Recording check box, click **Detail**.

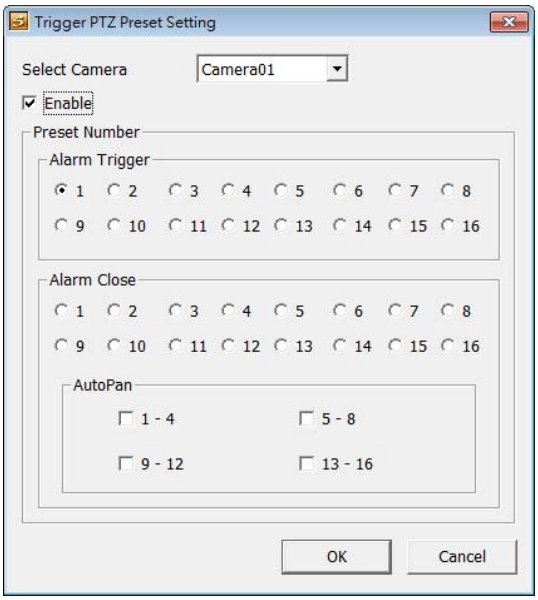



  1. In the Alarm Recording Setting dialog box, select the camera to enable/disable video recording. Enable **All** to select all cameras.
  2. In the Frame Rate selection, select **As Setting** to record the number of frames based on the Recording Setting.
  3. In the **Start Record prior** text box, mark and set the number in second for the program to begin recording after the alarm has been trigger. The time range is 1~10 seconds.
  4. In the **Stop Record after** text box, mark and set the number in second for the program to continue recording after the alarm has ended. The time range is 1~999 seconds. If user doesn't mark and set the time, the alarm recording will continue recording until alarm is reset.
  5. Click **OK** to accept the new settings and **Cancel** to exit without saving.

EH6108H+ only supports 8 channels.

- **PTZ preset point**

  Position the PTZ camera based on the preset point setting. Beside the PTZ preset point check box, click **Detail**. In the Trigger PTZ Preset Setting dialog box, select the PTZ camera number then select the **Enable** check box. Select the position of the PTZ camera when the alarm is activated and ended. For the PTZ camera end point, user can also select on preset position or **Auto Pan** between preset position groups.



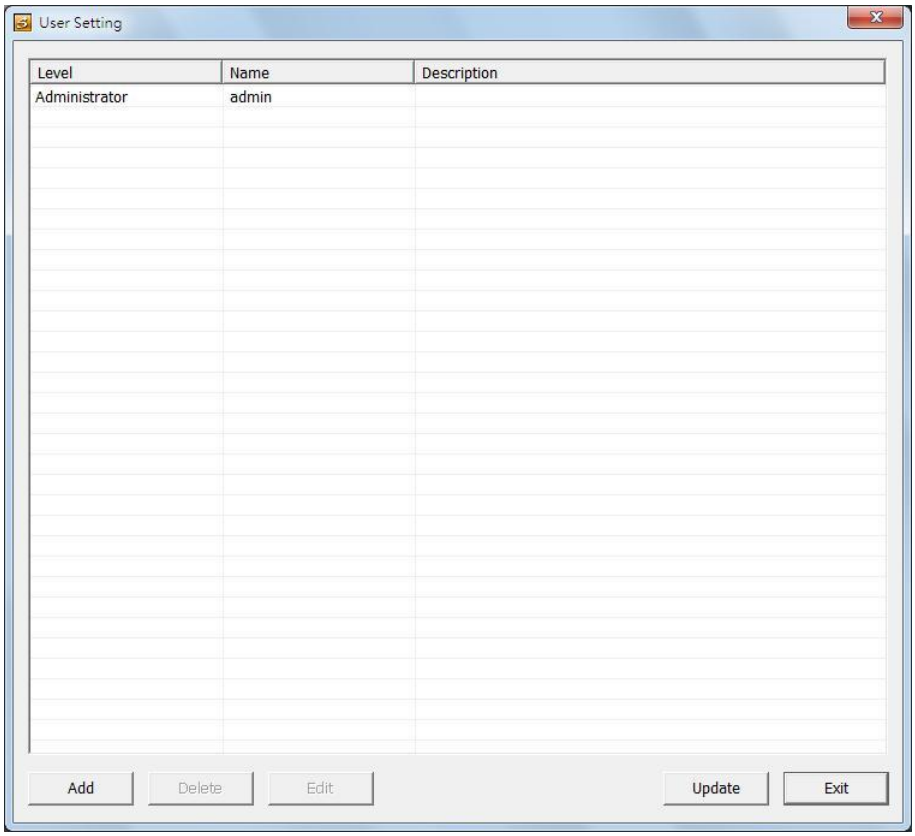
- **Send to CMS (Central Management System)**
  Enable/disable the selected camera to send video to CMS when the alarm is activated. Beside the Send to CMS check box, click **Detail**. In the CMS Setting, select the camera to enable/disable sending the video to CMS. Enable **All** to select all cameras. Then, click **OK** to accept the new settings and **Cancel** to exit without saving.


EH6108H+ only supports 8 channels.

## 4.1.4.6 User Setting

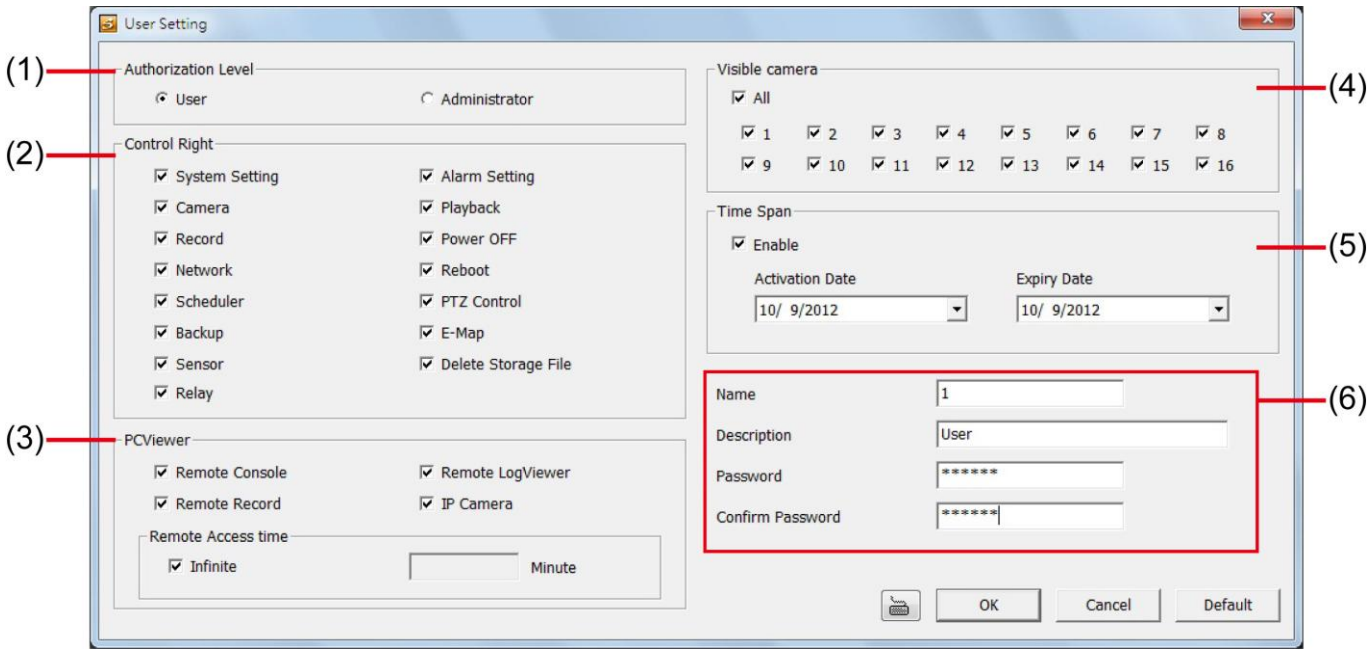
Only administrator level authority can access User Setting.

In the User Setting dialog box, click **Add** to insert a new user, **Delete** to remove the selected user, **Edit** to modify the user control right, **OK** to exit and accept the setting, and **Cancel** to exit without saving the setting.




**To Add a User Account:**

3. In the User Setting dialog box, click **Add**.
4. Select and fill in the following information.




**(1) Authorization level**

Select the authorization level of the user account – User or Administrator.

**(2) Control Right**

Enable the items that would allow the user to access.

**(3) PCViewer**

Enable/disable PCViewer control right that allow the user to operate from a remote location using internet explorer.

- **Remote Console**
  Allow the user to remote modify DVR system setting.
- **Remote Record**
  Allow the user to execute recording.
- **Remote LogViewer**
  Allow the user to view the event log from remote site.
- **IP Camera**
  Enable/disable user to add new IP camera when using the PCViewer.
- **Remote Access Time**
  Enable **Infinite** check box to access DVR without time limit. If you want to set time limit, enter the number of minutes in **Minute** text box.

**(4) Visible Camera**

Select the camera number that would allow the user to access or view. To select all the cameras, enable the **ALL** check box.

**(5) Time Span**

Set the user account a specific time period that user only can use given account to login DVR program in that specific period. Mark **Enable** check box and select the **Activation Date** and **Expiry Date**.

**(6) Name**

Enter the user name.

**Description**

Enter the user description.

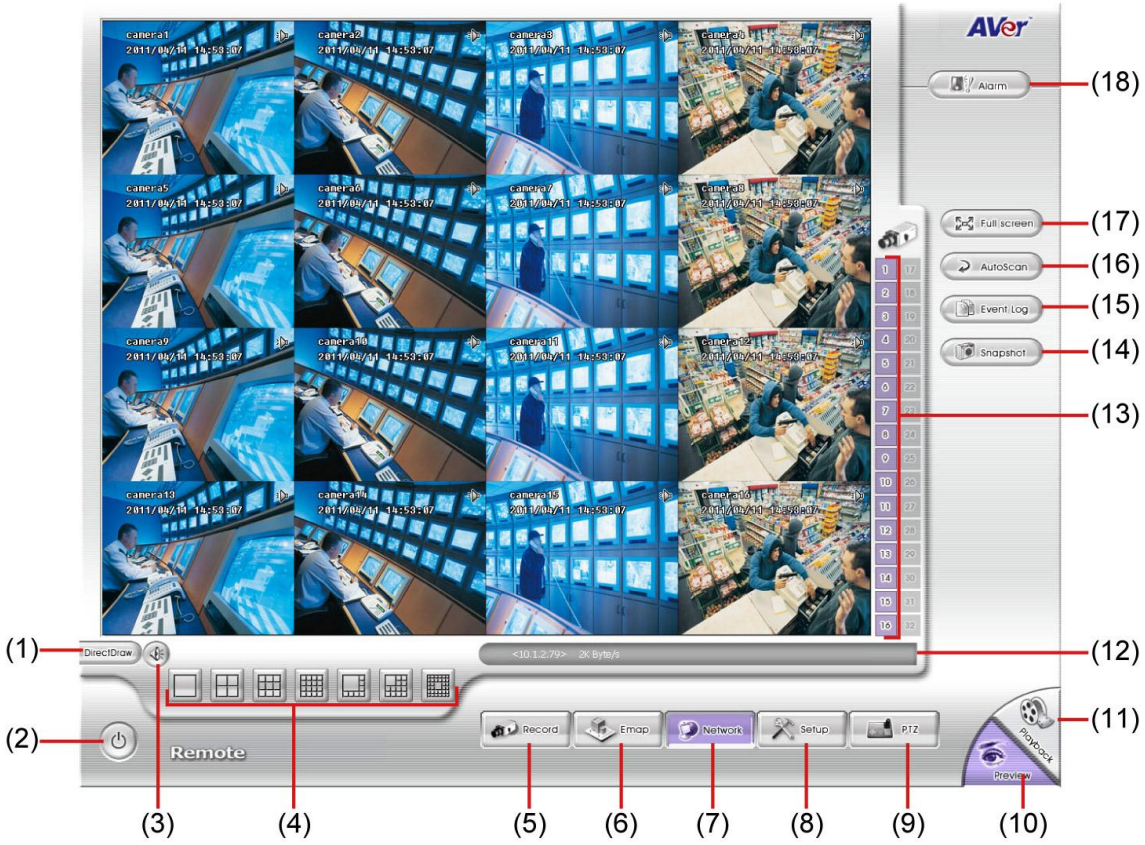
**Password**

Enter the user password.

**Confirm Password**

Enter the same user password for confirmation.

# 4.2 Familiarizing the Buttons in Remote Console

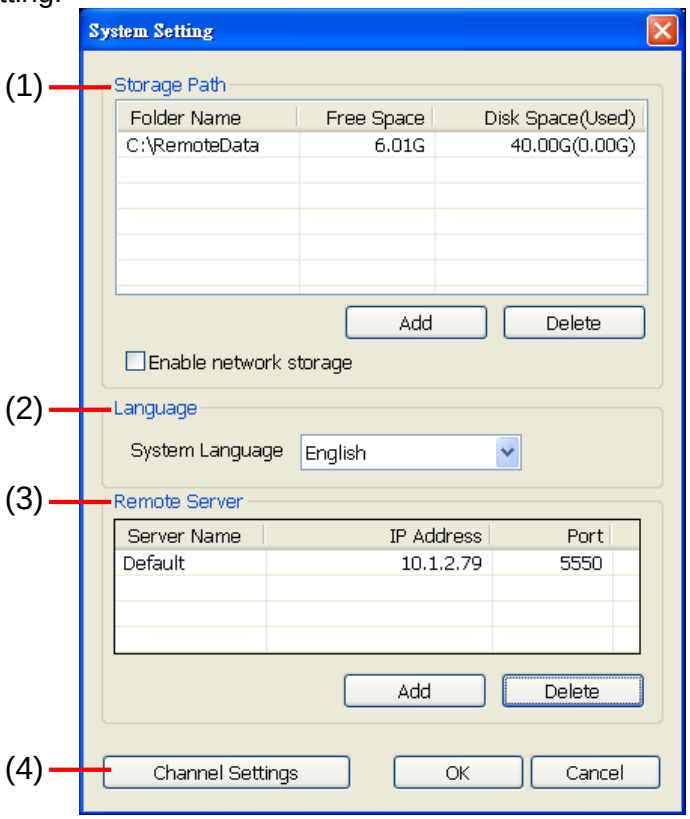



| Name | Function |
|---|---|
| (1) DirectDraw | Enhance the video quality. |
| | Direct Draw function supports for certain VGA card. For more information, please contact your VGA card vendor. |
| (2) Exit | **Exit:** Close the Remote Console.<br>**Minimize:** Minimize the application on task bar.<br>**Cancel:** To go back to the application. |
| (3) Audio button | Enable/disable the sound. |
| (4) Split Screen Mode | Select from 7 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen.<br>If there are only 8 cameras, you won't be able to switch to 13, 16, and 32 split screen mode. |
| (5) Record | Start/stop video recording. |
| (6) Emap | To view the Emap of remote DVR. |
| (7) Network | Enable/disable remote system access. This feature allows you to access DVR server from a remote location via internet connection. |
| (8) Setup | Configure the Remote Console setting. (see also Chapter 4.2.1) |
| (9) PTZ | Access PTZ control panel. (see Chapter 4.2.2) |
| (10) Preview | Switch to Preview/Playback mode. This allows you to view live camera display. |
| (11) Playback | Switch to Playback mode. This allows you to view the recorded video file. (see also Chapter 4.3) |
| (12) Status Bar | Display the current date, time and hard disk free space. |
| (13) Camera ID | Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera. |

| Name | Function |
|---|---|
| (14) Event Log | Display the Event logs, Operation logs, System logs, and Network logs. |
| (15) Auto Scan | Start/Stop video screen cycle switch. |
| (16) Snapshot | Capture and save the screen shot either in *.jpg or *.bmp format. |
| (17) Full screen | Use the entire area of the screen to only display the video.<br>To return, Right-click the mouse or press **ESC** on the keyboard. |
| (18) Alarm | Alert and display warning info. Admin and user account authority level both can reset the alarm. The password authentication is required. |

## 4.2.1 To Setup Remote Console Setting

Click **Setup** button to call out the **System Setting** windows. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.




**(1) Storage Path**

Set the directory on where to save the data. When there is not enough free space to record one hour data, the system automatically replaces the oldest data. In case you have more than one storage path, the system automatically saves the data to the next storage path. By default the data is stored in C:\RemoteData, to insert another storage path, click **Add**. To remove the selected path, click **Delete**.

- **Enable network storage**
  Select the Enable network storage check box to send the recorded video in network-attached storage.

To add network storage, the Internet storage drive/folder must be mapped as Network Driver in DVR server. To know how to assign or connect to a network drive, please refer to your Windows help file and search “Map Network drive”.

**(2) Language**

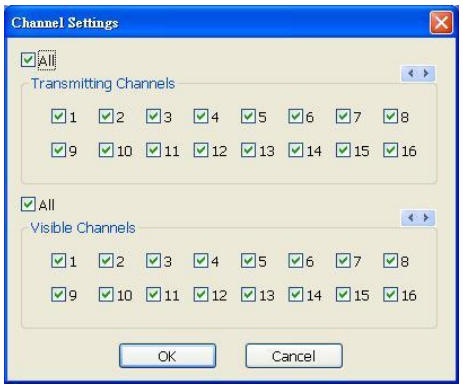
Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English.

**(3) Remote Server**

Enter the DVR Server IP and Server Port number.

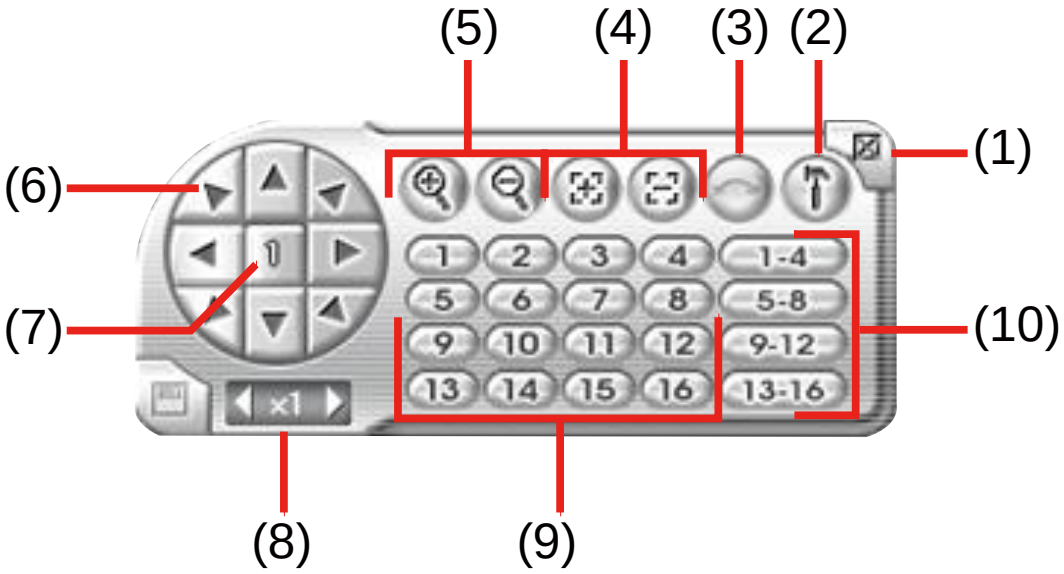
**(4) Channel Settings**

The numbers from 1 to 16 represent the camera ID. In Transmitting Channels section, enable the camera number to receive the camera signal from the server. In Visible Channels section, enable the camera number to view the camera signal on Remote Console screen. To select all the cameras, enable the **ALL** check box.




EH6108H+ only supports 8 channels.

## 4.2.2 Familiarizing the Buttons in PTZ Camera Controller



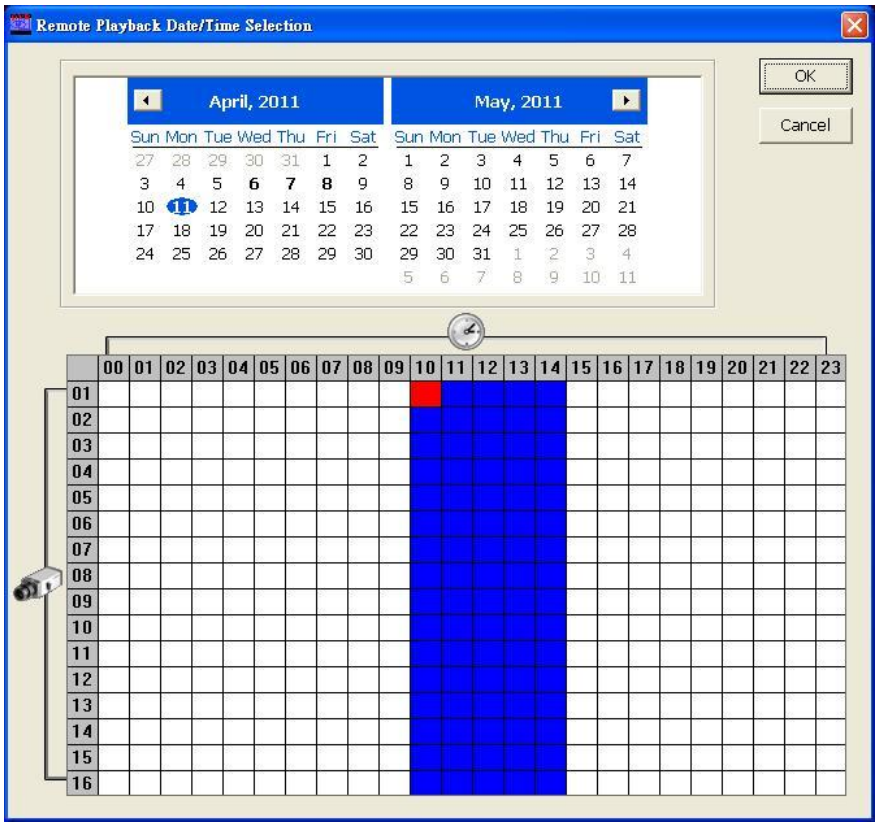

| Name | Function |
|---|---|
| (1) Close | Exit PTZ camera controller. |
| (2) Setup | Select the PTZ camera to operate. |
| (3) AutoPan | Operate the PTZ cameras automatically based on the selected camera group preset position number. |
| (4) Focus +/- | Adjust the focus manually to produce clear image. |
| (5) Zoom +/- | Zoom in and out the image. |
| (6) Direction buttons | Adjust and position the focal point of the PTZ camera. Only up, down, left and right direction buttons can be functional. |
| (7) Camera ID pane | Display the PTZ camera number that is being operated. |
| (8) Camera lens speed controller | Adjust the moving speed of the PTZ camera lens. |
| (9) Camera preset position number | Move the PTZ camera to the preset point. |
| (10) Group AutoPan | Select to automatically operate PTZ camera in group. |

## 4.3 Using the Remote Playback

To use this feature, first you need to select the source of the file. In the Select Playback Mode dialog box, choose **Local Playback** to open the file that is recorded in the Remote Console, and **Remote Playback** to open the file that is recorded in the DVR server. When you choose Remote Playback, select **RealTime Playback** if your internet bandwidth is fast and big enough, otherwise choose **Download and Playback**.


Click **OK** to proceed and **Cancel** to void this operation.

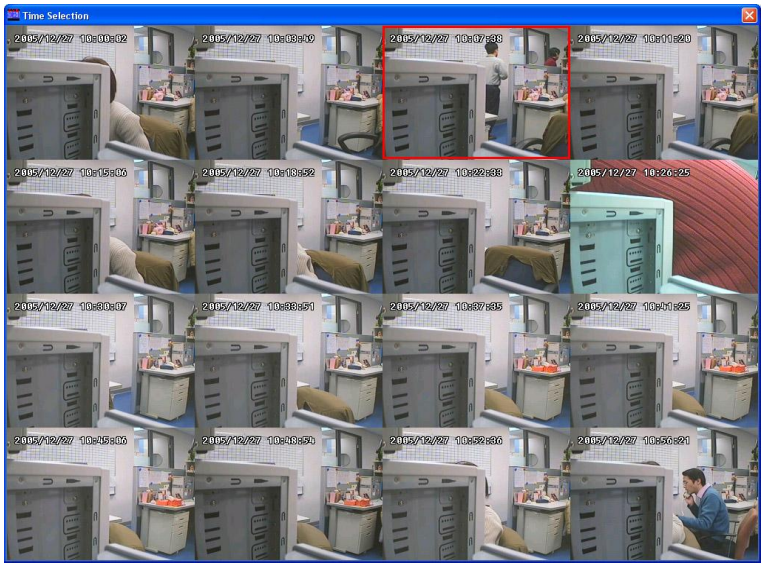

In the Video Playback Date/Time Selection, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 8 represent the camera number.



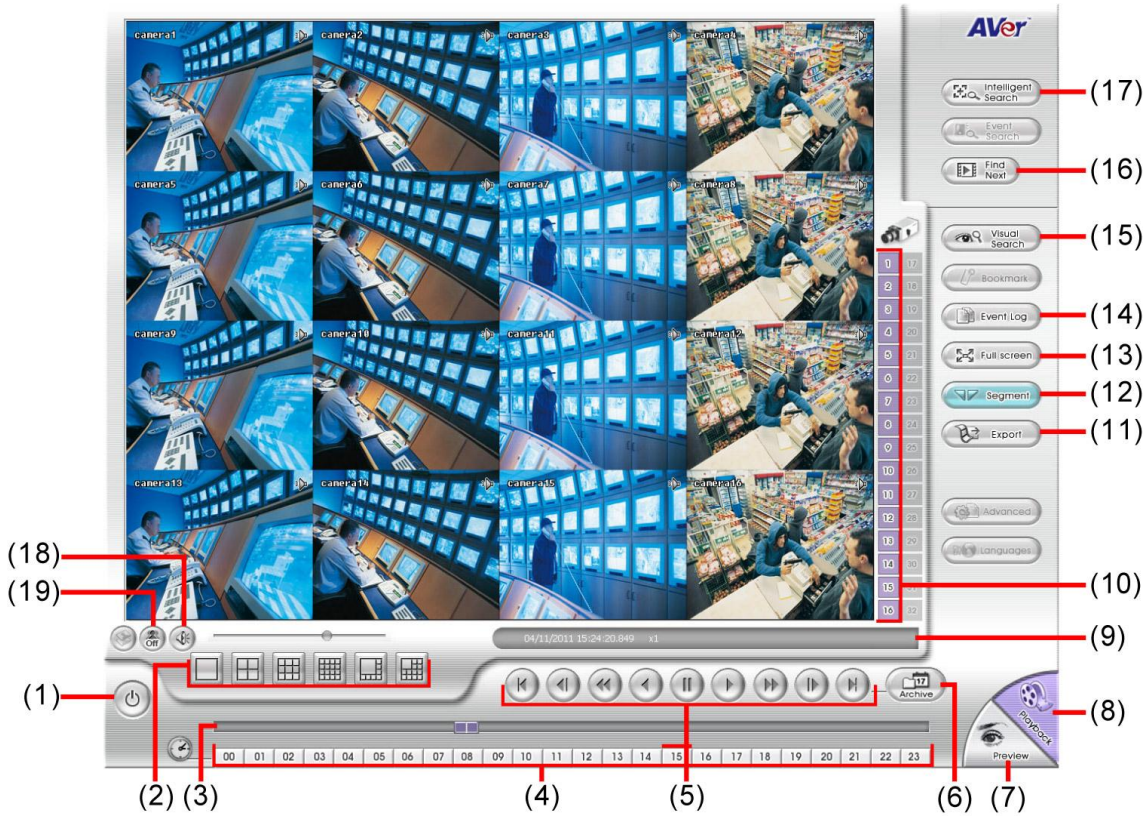

**To Make a Selection:**

1. Select the date in the calendar. Use ◂ and ▸ buttons to shift the calendar to the left or right.
2. In the table below, click on the blue block to select and open the recorded file. The blue block turns red when it is selected. The block that appears in white doesn't have data. You can only select one block when you choose Download and Playback.

3. Click **OK** to proceed and **Cancel** to void this operation.
4. If you select Download Playback and after making the selection, the system divides the selected hour into 16 video thumbnails. In the Time Selection screen, click on the video thumbnail you want to download (see also Chapter 5.4.3).



## 4.3.1 Familiarizing the Buttons in Local Playback




| Name | Function |
|---|---|
| (1) Exit | To close the application |
| (2) Split Screen Mode | Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera over the other or alongside on a single screen. |

- If there are only 8 cameras, you won't be able to switch to 13 and 16 split screen mode.
- To zoom in an area on the screen, Right click and Drag a square on the area you want to enlarge. To back to normal view, right click the channel screen again.

| | |
|---|---|
| (3) Progress bar | Show the progress of the file being played. You may move the bar to seek at any location of the track. |
| (4) Hour Buttons | Select and click to playback the recorded video file on the specific time frame. |

The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. If there is no recorded data within the hour, there will be no color bar on top of the hour button. While the red bar indicates that you are currently viewing the recorded video file.

| | |
|---|---|
| (5) Playback Control Buttons | **Begin:** Move at the beginning of the recorded video file.<br>**Previous:** Go back to the previous frame.<br>**Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, 1/8x, 1/16x, or 1/32x.<br>**Rewind:** Wind back the video file.<br>**Pause:** Briefly stop playing the recorded video file.<br>**Play:** Play the recorded video file.<br>**Faster:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x or 32x.<br>**Next:** Go to the next frame.<br>**End:** Go to the end of the video file. |

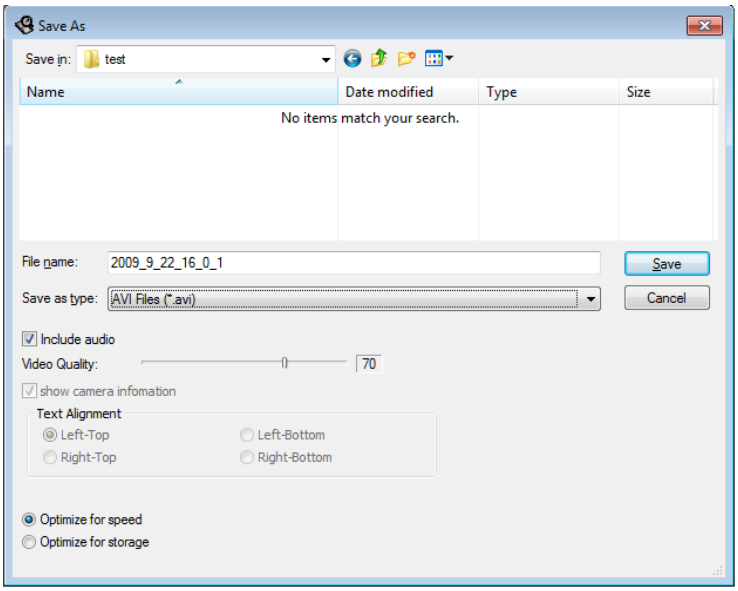
| Name | Function |
|---|---|
| (6) Archive | Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. |
| | The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. While the red colored column indicates on where to start playing the recorded video file. If there is no any video data, it will be no color bar on top of the date button. |
| (7) Preview | Switch to Preview mode. |
| (8) Playback | Switch to Playback mode. This allows you to view the recorded video file. |
| (9) Status bar | Display the record date, time, HDD capacity in preview mode and play speed in playback mode. |
| (10) Camera ID | Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera. |
| (11) Export | Export includes Snapshot, Print, and Output Video Clip function.<br>■ **Snapshot:** Capture and save the screen shot either in *.jpg format.<br>■ **Print:** Print the screen shot.<br>■ **Output Video Clip:** Save the segmented file in *.dvr format (see also Chapter 4.3.1.1). |
| (12) Segment | Keep a portion of the recorded video you want (see also Chapter 4.3.1.1). |
| (13) Full screen | View in Playback-compact mode. To return, press the right button of the mouse or ESC on the keyboard. |
| (14) Event Log | Show the record of activities that take place in the system |
| (15) Visual Search | Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second(also see Chapter 4.3.1.2). |
| (16) Find Next | Search for the next event. You can use this when you are using Event Search function. |
| (17) Intelligent Search | Search the changes in the motion detector frame (See also Chapter 4.3.1.3). |
| (18) Audio | Enable/disable volume |
| (19) De-interlace | To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement. |

#### 4.3.1.1 To Cut and Save the Wanted Portion of the Recorded Video

1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click Segment to set the begin mark.


2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click Segment to set the end mark. To cancel segmentation or set the segment marks from the start, click Segment button again.

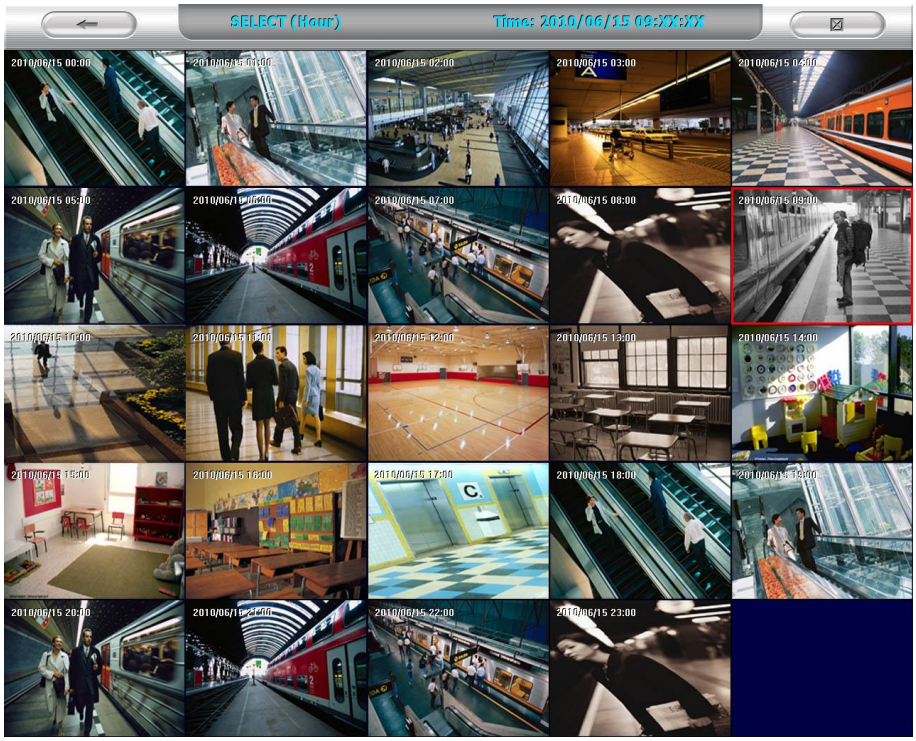

3. Click **Export** > **Output Video Clip** button to save the wanted clip.
4. In the Save As dialog box, locate on where you want to save the file.
5. Select the file type and select the camera information display position when playback. The camera information will be the information of server name that user has defined in Network Setting.
6. If the select the file type is *.avi, user can mark **included audio** to include audio in output video segment.
7. To adjust **Video Quality** if needed.
8. And, select the **Optimize for speed** (*.mpg /*.avi only)for faster file opened. For saving storage, select **Optimize for storage**.
9. Click **Save** to save the video segment.



### 4.3.1.2 To Search Using the Visual Search

1. Click **Visual Search**.
2. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.

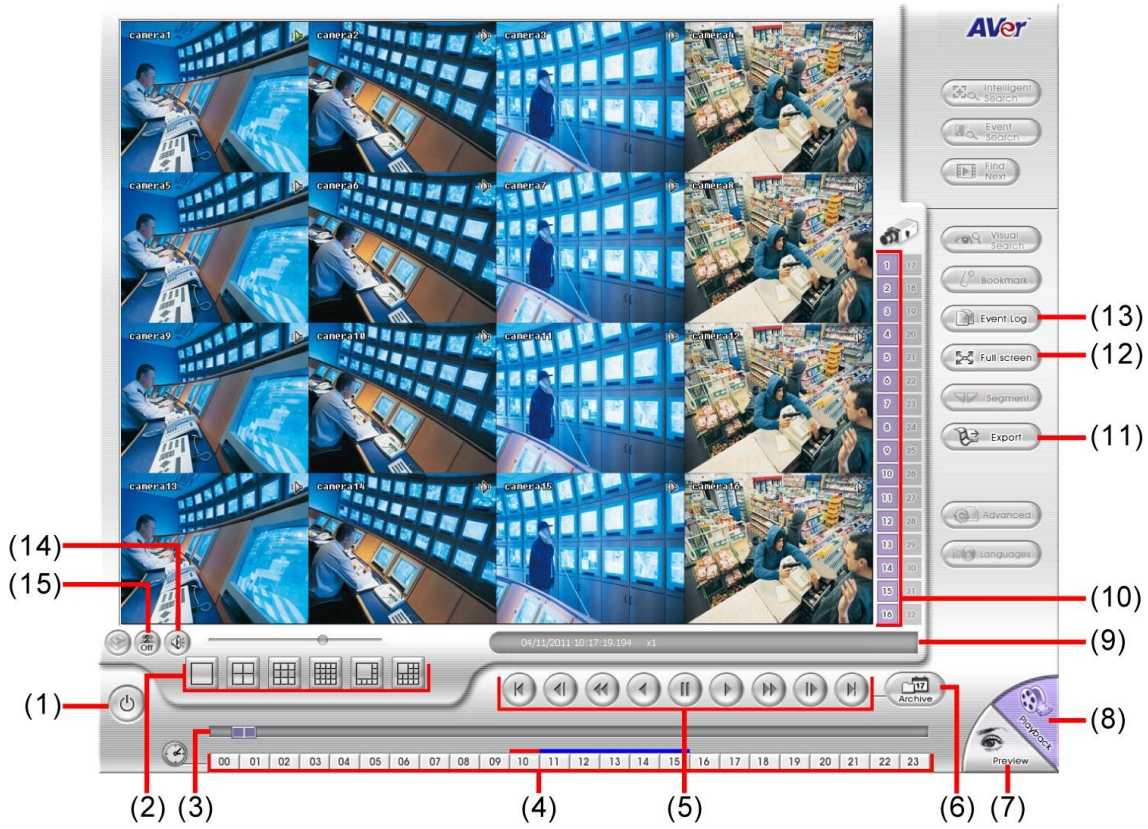

3. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every 3Minutes of that hour, every 10 Seconds of that minute, every Second of that 10 seconds. To go back, click . To view from the selected frame and close event search, click .




### 4.3.1.3 To Search Using the Intelligent Search

1. Click on the video screen on where you want to search.
2. Click **Intelligent Search**. The Intelligent Search text (red) would appear at the lower left corner of the screen.
3. When the Intelligent Search Setting dialog box and motion detector frame appear, you may adjust the sensitivity bar and the motion detector frame size and location. To set motion detector frame size and location, left click and drag on the screen. Then, click OK to start searching. The video search would stop at the frame that matches the condition. To keep on searching click . You may also set to search and list all the result. Just check the List box. In the Search Duration section set the Begin Time and End Time. Set the Searching Interval time that system won't list out the same events in a period of time that user has setup. Then, click OK to start searching.

## 4.3.2 Familiarizing the Buttons in RealTime Playback




| Name | Function |
|---|---|
| (1) Exit | To close the application |
| (2) Split Screen Mode | Select from 6 different split screen type to playback the recorded video file of the entire camera, or one camera. |
| | - If there are only 8 cameras, you won't be able to switch to 13 and 16 split screen mode.<br>- To zoom in an area on the screen, **Right** click and **Drag** a square on the area you want to enlarge. |
| (3) Progress bar | Show the progress of the file being played. You may move the bar to seek at any location of the track. |
| (4) Hour Buttons | Select and click to playback the recorded video file on the specific time frame. |
| | The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file. |
| (5) Playback Control Buttons | **Begin:** Move at the beginning of the recorded video file.<br>**Previous:** Go back to the previous frame.<br>**Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, 1/8x, 1/16x, or 1/32x.<br>**Rewind:** Wind back the recorded video file.<br>**Pause:** Briefly stop playing the recorded video file.<br>**Play:** Play the recorded video file.<br>**Faster:** Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x.<br>**Next:** Go to the next frame.<br>**End:** Go to the end of the recorded video file. |
| (6) Archive | Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. |
| | The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file. |
| (7) Preview | Switch to Preview/Advanced mode. |

| Name | Function |
|---|---|
| (8) Playback | Switch to Playback mode. This allows you to view the recorded video file. |
| (9) Status bar | Display the recorded date, time and play speed. |
| (10) Camera ID | Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera. |
| (11) Export | **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. |
| (12) Full screen | View in Playback-compact mode. To return, press the right button of the mouse or **ESC** on the keyboard.<br>When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all. |
| (13) Event Log | Show the record of activities that take place in the system |
| (14) Audio | Enable/disable volume |
| (15) De-interlace | To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and select #2, if it captures lots of movement. |

## 4.3.3 Familiarizing the Buttons in Download and Playback


| Name | Function |
|---|---|
| (1) Exit | To close the application. |
| (2) Progress bar | Show the progress of the file being played. You may move the bar to seek at any location of the track. |
| (3) Playback Control Buttons | **Begin:** Move at the beginning of the recorded video file.<br>**Previous:** Go back to the previous frame.<br>**Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x.<br>**Rewind:** Wind back the recorded video file.<br>**Pause:** Briefly stop playing the recorded video file.<br>**Play:** Play the recorded video file.<br>**Faster:** Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x.<br>**Next:** Go to the next frame.<br>**End:** Go to the end of the recorded video file. |
| (4) Status bar | Display the recorded date, time and play speed. |
| (5) Language | Customize the system to display the tool tips and dialogs based on the selected language. By default the language is in English. |
| (6) Export | Export includes Snapshot, Print, and Output Video Clip function.<br>■ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format.<br>■ **Print:** Print the screen shot.<br>■ **Output Video Clip:** Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 4.3.1.1). |
| (7) Segment | Keep a portion of the recorded video you want (see also Chapter 4.3.1.1). |
| (8) Full screen | View in Playback-compact mode. To return, press the right button of the mouse or **ESC** on the keyboard.<br>When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all. |
| (9) Event Log | Show the record of activities that take place in the system |

| Name | Function |
| --- | --- |
| (10) Visual Search | Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 4.3.1.2). |
| (11) Audio | Enable/disable volume |
| (12) De-interlace | To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and select #2, if it captures lots of movement. |

# Chapter 5 Using the Web Tools

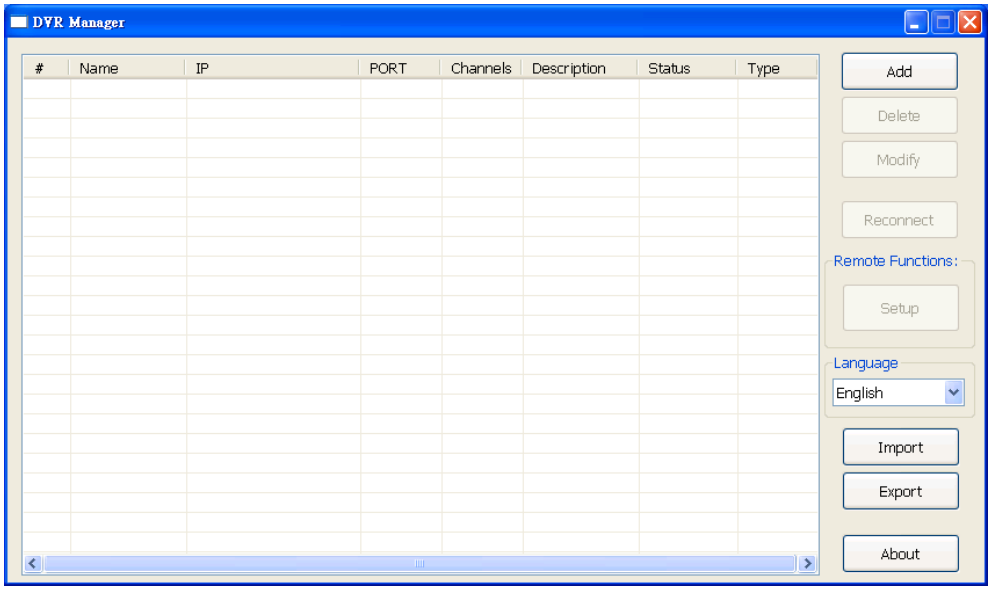
The bundled Web Tools includes Dispatch Server, Remote Backup, and Remote Setup program. To install Web Tools, place the CD into the CD-ROM drive then click **Install Web Tool**.

## 5.1 Remote Setup

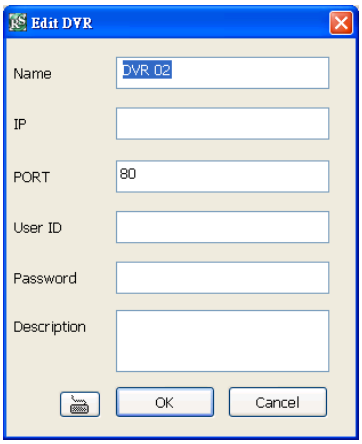
Remote Setup is a tool for configuring DVR server from remote site. To install Remote Setup application, insert the Installation CD into CD-ROM drive and click **Web Tools**. After installation, click  to start the Remote Setup application.

### 5.1.1 To Add DVR server

User need to add a DVR server and make connection in order to setup remote DVR server.




1. Click **Add**
2. In Edit DVR windows, fill in the following items:
   - **Name:** give a name for remote DVR server for easy managing
   - **IP:** fill in remote DVR server's IP address
   - **Port:** the port use to connect to remote DVR server. The port number is same the PCViewer port on the remote DVR server. The default is 80.
   - **User ID:** fill in the remote DVR server's login account
   - **Password:** fill in the remote DVR server's login password
   - **Description:** fill in a short description for the remote DVR server




3. Click **OK** to complete adding remote DVR server.
4. The added DVR server will be listed and auto connects to DVR server.
5. Once the connecting is success, user can start to configure DVR server by clicking **Setup** button.
6. When connection is lost, click **Reconnect** to connect again.
7. To modify or delete the added DVR server, select the DVR server from listing and click **Modify** to change the setting and click **Delete** to remove the DVR server.
8. User also can import the setting by clicking **Import** button. To save the setting to local hard disk, click **Export** button.

### 5.1.2 To Setup Remote System Setting

The setting here applies to Remote DVR only. Please refer to Chapter 4.1.4.

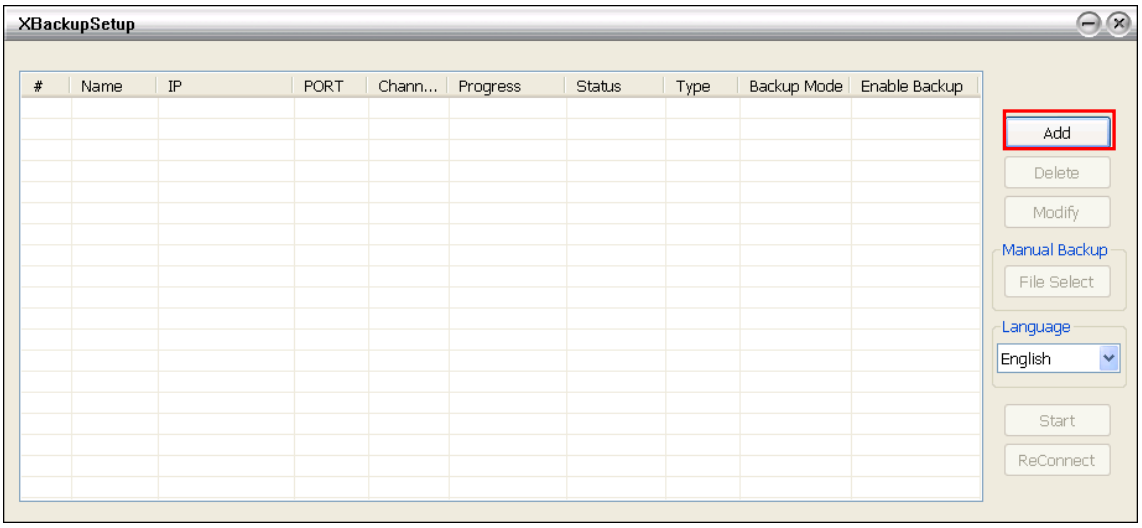
## 5.2 Remote Backup

Remote Backup is purely for backing up the *.dvr file from the DVR sever. You can select between Auto Backup and Manual Backup. Auto Backup continuously archives one hour of the recorded data at a time, starting from the specified date. As for Manual Backup, it only archives the recorded data of selected date.

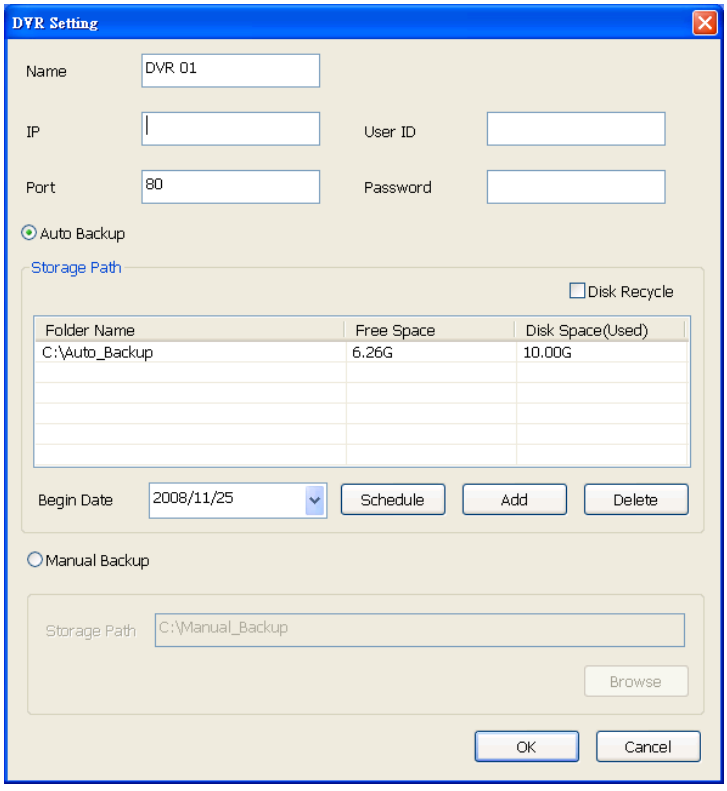
To back up the data, you must have at least 2G hard disk space.

### 5.2.1 To back up the recorded data from the DVR server

1. Make sure you are connected to internet.
2. Click **Start** >> **Program** >> **DSS** >> **Tool** >> **Remote Backup**
3. To add the DVR server, click **Add**




4. In the Add New DVR windows, enter the Name, IP, user ID, and password.



5. Select the Backup mode:

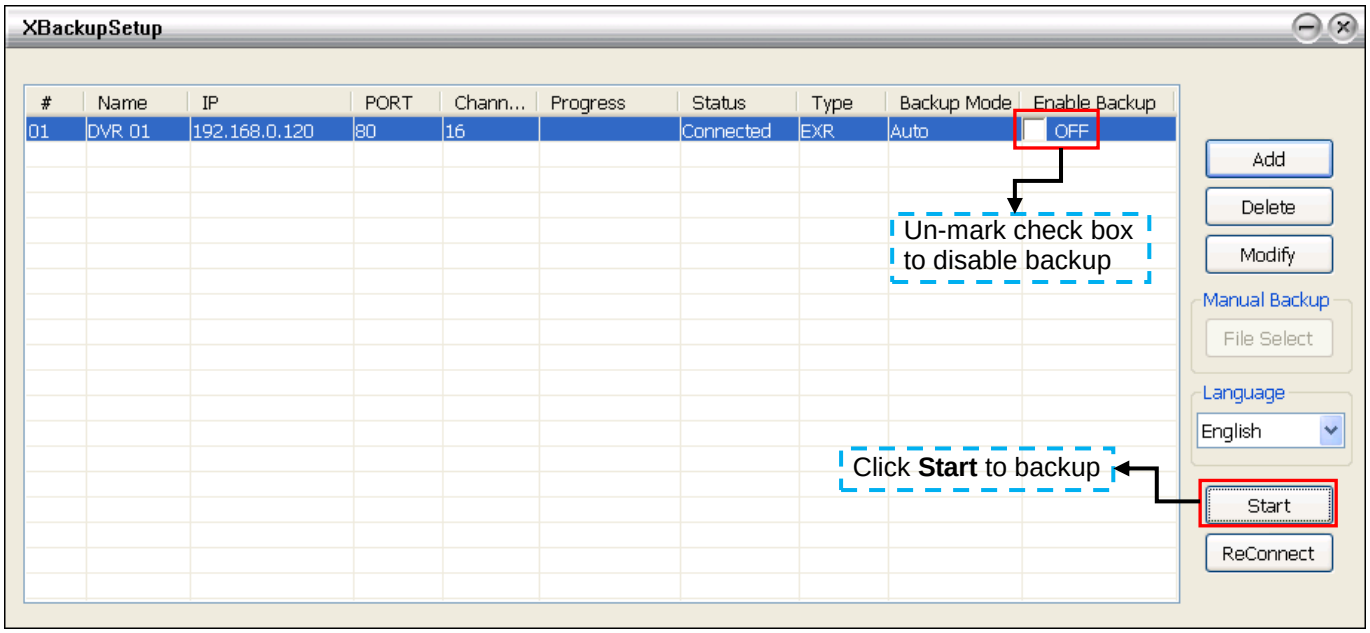
   **Auto Backup mode:** the backup will automatically execute when the setup is completed

   - In Begin Date drop down calendar, select the date from where to start
   - Click **Add** to set the storage path.
   - Click **Delete** to remove the selected storage path.
   - Click **Schedule** to select/unselect the time you want to backup. The red block turns white when it is unselected.
   - Enable/disable **Disk Recycle** check box, to automatically overwrite the oldest file when there is not enough free space to backup the file.

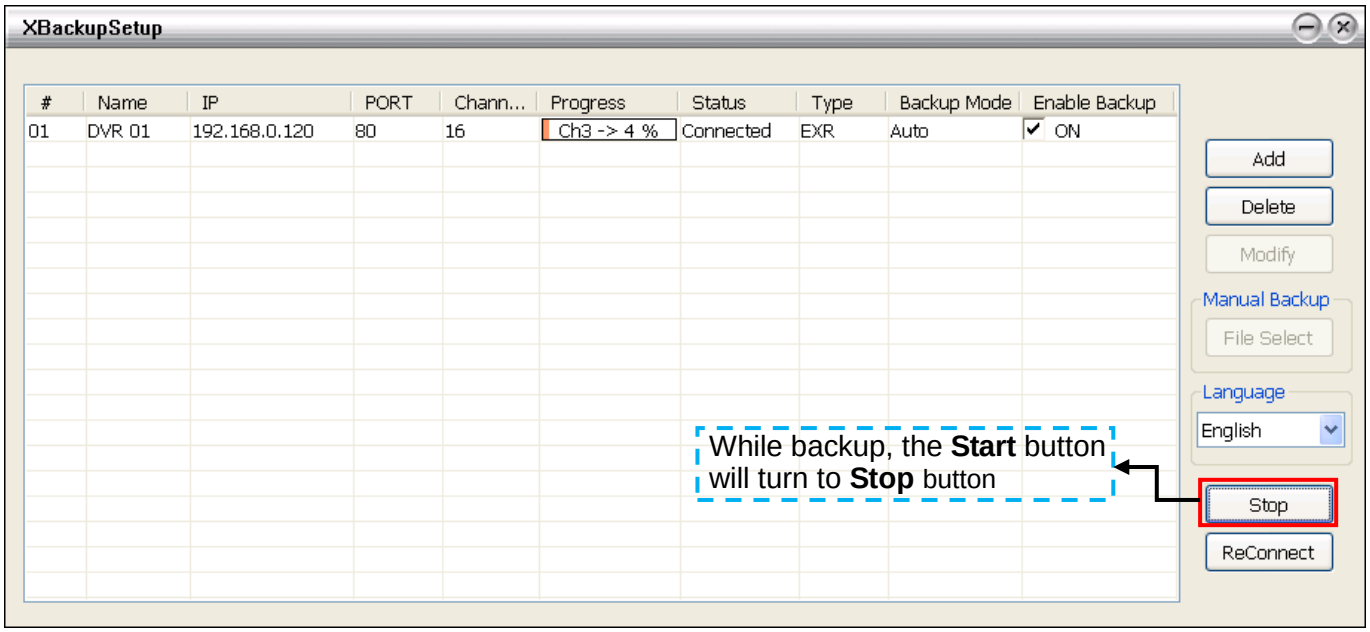
   **Manual Backup mode:** the backup progress will start when user press the backup button

   - Click **File Select** to choose the date, time and camera you want to back up.
   - Click **Browse** to set the storage path.

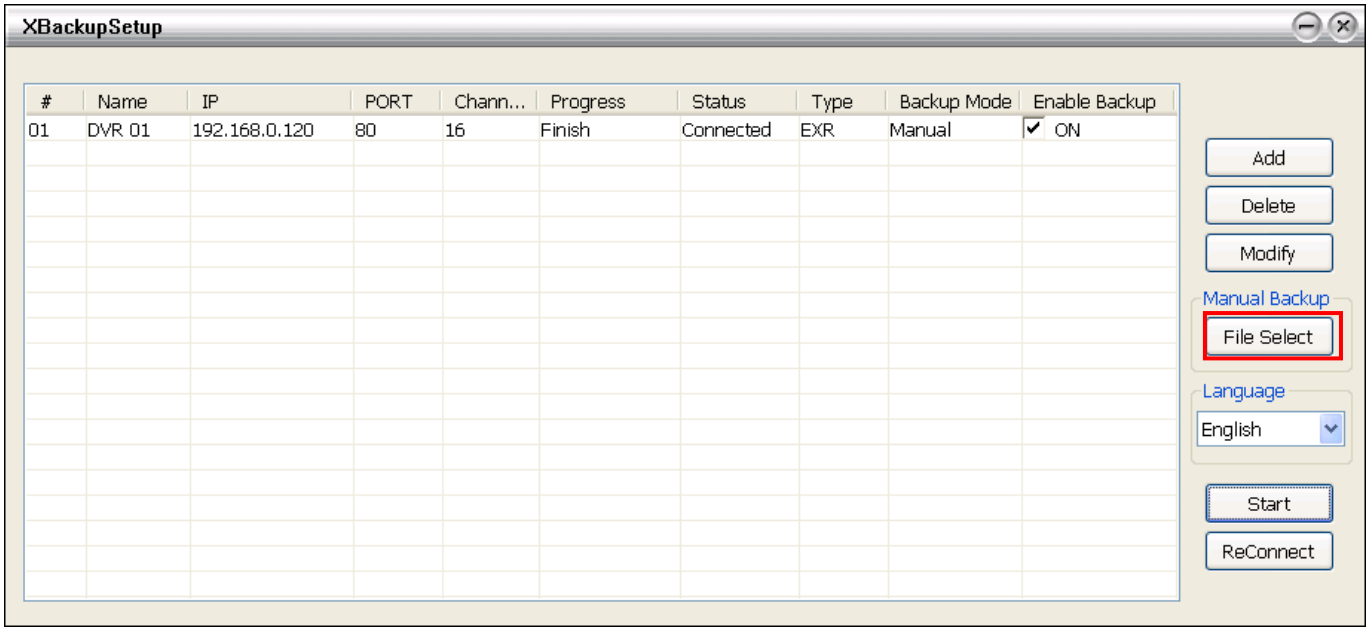
6. Click **OK** to complete the adding DVR server. The added DVR server will display in Remote Backup main windows.




7. Click **Start** to begin backup and click Stop to stop backup progress.



8. For manually backup, click **file select** button and select the DVR to backup.



# Appendix A Registering Domain Name

DDNS (Dynamic Domain Name Service) is a data query service mainly used on the Internet for translating domain names into Internet addresses. It allows remote clients to intelligently search dynamic servers without any previous enquiring for servers' Internet addresses.
In order to take advantage of this intelligent service, first register your domain name on the following Web site.

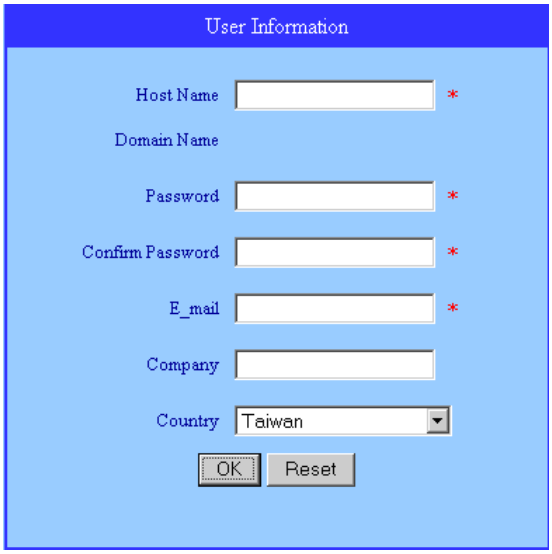
## I. Register the Domain Name on http://ddns.avers.com.tw

1. **User Login**
   Browse the website **ddns.avers.com.tw** with Microsoft IE or Netscape Navigator to access the following dialog.


2. First input the **MAC Address** in **CD-Key No.** column and select the product name. Then click **OK** to login or **Reset** to clear the previous input.

> To find the MAC address of the DVR, click **Setup** > **Network** in preview mode UI. And then, click **Setting** of the Main Configuration and user should see the **MAC address** in IP Information section.

3. **User Information**
   Please provide the following user information, **Host Name** (user can choose any name he/she likes except the one in conflict with other users), **Password**, **E-mail**, **Company**, and **Country**. And then, click **OK** to complete the domain name registration.




- Note that Host Name and Domain Name (avers.com) are the replacement for Internet address while a remote client tends to search a dynamic server.
- Host Name column supports alphabet letters and number only. The maximum character is 15.
- The password maximum character is 12.

## I. Register the Domain Name on http://dyn.com/dns/

1. Open the browser on your PC and enter the URL http://dyn.com/dns/.
2. Please refer to the Dyndns website instruction to apply a free domain name.

# Appendix B Network Service Port

The following table shows the ports that DVR server uses for certain network service.

| | Port# | Variable |
|---|---|---|
| **Remote Console** | 5550 | Y |
| **PCViewer** | 80 | Y |
| **CM3000** | 80 | Y |
| **Firmware Update** | 5005 | Y |
| **2-way audio** | 9999 | Y |

# WARRANTY NOTICE

### LIMITED WARRANTY

AVer Information Inc. warrants this product to be free of defects resulting from faulty manufacture or components under the following terms:

### WARRANTY LENGTH

Labor is warranted for (3) three year from the date of purchase

Parts are warranted for (2) two year from the date of purchase

Replacement products will be warranted for the remainder of the one year warranty period or (30) thirty days, whichever is longer

### WHO IS PROTECTED

This warranty is enforceable only by the first consumer purchaser

### WHAT IS AND IS NOT COVERED

Except as specified below, this warranty covers all defects resulting from faulty manufacturing of this product. The following are not covered by the warranty.

1. Any product on which the serial number has been defaced, modified, or removed
2. Damage, deterioration, or malfunction resulting from:

   Accident, abuse, misuse, neglect, fire, water, lightning, or other acts of nature, commercial or industrial use, unauthorized product modification, or failure to follow instructions included with the product.

   Misapplication of service by someone other than the manufacturer's representative

   Any shipment damages (Claims must be made with carrier)

   Any other cause which does not relate to a product defect
3. Cartons, cases, batteries, cabinets, tapes, or accessories used with product
4. AVer Information Inc. does not warrant that this product will meet your requirements; it is your responsibility to determine the suitability of this product for your purpose

### WHAT WE WILL AND WILL NOT PAY FOR

We will pay labor and material expenses for covered items. However, we will not pay for the following:

1. Removal or installation charges
2. Shipping charges
3. Any incidental charges

### EXCLUSION OF DAMAGES

THE MANUFACTURER'S SOLE OBLIGATION AND LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT AT OUR OPTION. THE MANUFACTURER SHALL NOT, IN ANY EVENT, BE LIABLE TO THE PURCHASER OR ANY THIRD PARTY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE (INCLUDING, BUT NOT LIMITED TO, DAMAGES RESULTING FROM INTERRUPTION OF SERVICE AND LOSS OF BUSINESS) OR LIABILITY IN TORT RELATING TO THIS PRODUCT OR RESULTING FROM ITS USE OR POSSESSION.

### LIMITATIONS OF IMPLIED WARRANTIES

There are no other oral or written warranties, expressed or implied, including but not limited to those of merchantability or fitness for a particular purpose. Any implied warranties are limited in duration to one year from the date of purchase

### STATE LAW AND YOUR WARRANTY

This warranty gives you specific legal rights, and you may also have other rights granted under state law. These rights vary from state to state

### CONTACT INFORMATION

Taiwan & International

No. 157, DA-An Rd., Tucheng Dist., New Taipei City, Taiwan

TEL: 886-2-2269-8535

Web Site: http://surveillance.aver.com/